Human Resource for Health and Training

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Human Resource Training [HRT]

"When planning for a year, plant corn. When planning for a decade, plant trees. When planning for life, train and educate people."

-Chinese proverb: Guanzi (c. 645BC)

"I hear and I forget. I see and I remember. I do and I understand."

-Confucius

"We cannot teach people anything; we can only help them discover it within themselves."

-Galileo Galilei (1564-1642)

""Coming together is a beginning. Keeping together is progress. Working together is success."

-Henry Ford (1863-1947)

Human Resource Training

(Part First)

Concept of Health Manpower Training and Education

1.1. Introduction and Definition

Training is an important HRD activity which reinforces HRM in an organization. Apart from the need for internal staffing, training enhances job related skills and also facilitates acquiring of new skills required for averting skill obsolescence in an organization.

Training is the act of increasing the knowledge and skill of an employee for doing a particular job. Training is a short-term educational process and utilising a systematic and organised procedure by which employees learn technical knowledge and skills for a definite purpose.

Training is a process of learning which enhances capabilities required to improve the performance of employee in current job.

Dale S. Beach define
the training as "... the organized procedure by which people learn knowledge and/or skill for a definite purpose.

Edwin B. Flippo define
"Training is the art of increasing knowledge & skills of an employee for doing a particular job."

Planty define
"Training is the intentional act of providing means for learning to take place."

Decenzo and Robbins
Training is learning experiences on that it seeks a relatively permanent change in an individual that will improve the ability to perform in the job.

So training is

Transformation		Knowledge
Development		Attitude
Exploration	of	Skills
Enabling		Values

In other words training improves, changes, moulds the employee's knowledge, skill, behaviour, aptitude and attitude towards the requirements of the job and organisation.

Training refers to the teaching and learning activities carried on for the primary purpose of helping members of an organisation, to acquire and apply the knowledge, skills, abilities and attitudes needed by a particular job and organisation.

Training tries to improve skills or add to the existing level of knowledge so that the employees is better equipped to do his present job or to prepare him for a higher position with increased responsibility and are also able to cope with the pressures of a changing environment.

1.2. Objectives/Purpose of Training

- To provide knowledge and skills to new entrants and to help them to perform their role and job well.
- To educate employees new and innovative ways and techniques of performing job.
- To constantly develop manpower to meet the current as well as future needs of the organization.
- To ensure effective utilization of human resources.
- To integrate individual goals with the organization goals creating a climate so that an individual employee can best achieve his goals by attending the goals of organization.
- To prepare the employee both new and old to meet the present as well as the changing requirements of the job and the organisation.
- To prevent obsolescence.
- To assist employees to function more effectively in their present positions by exposing them to the latest concepts, information and techniques and developing the skills they will need in their particular fields.
- To build up a second line of competent officers and prepare them to occupy more responsible positions (Support for task shifting).
- To promote individual and collective morale, a sense of responsibility, co-operative attitudes and good relationships.

1.3. Uses and Importance of Training:

Even though, training primarily focuses or emphasizes on increasing the performance level of employees, a continuous training function enables the organization to develop employees for future responsible positions in the organization itself.
The need for and/or importance of manpower training in an organization may be:

- **Updating Knowledge–** Training is needed to renew and update knowledge and skills of employees to sustain their effective performance and so also to develop them for future managerial positions.
- **Avoiding Obsolescence–** Employee in the organization need training to refresh and update their knowledge. The old concept/practice will no longer be useful in this dynamic world. Therefore, training is needed to avert functional obsolescence.
- **Improving Performance–** By means of training, employees can improve their performance for doing a particular job.
- **Developing Human Skills–** Training is needed to make employees more skillful and competent. Training helps in developing and/or improving skills of employees for doing a particular job.
- **Increased Productivity–** Trained and competent employees are the asset of any organization which can contribute to the organizational objectives. Organizational productivity increases by means of utilizing trained and competent human resources.
- **Stabilizing Work Force –** Training opportunities makes employees more responsible and a sense of attachment to the organization. Retention of capable employees can be made through the process of training and other developmental programs.
- **Organizational Culture and Climate –** Training and Development helps to develop and improve the organizational health culture and effectiveness. It helps

in creating the learning culture within the organization. The employees get these feelings from leaders, subordinates, and peers. Training and Development also helps in inculcating the sense of teamwork, team spirit, and inter-team collaborations.

- **Effective Management-** Training can be used as an effective tool of planning and control. It develops skills among workers and prepares them for handling present and future jobs. It helps in reducing the costs of supervision, wastages and industrial accidents. It also helps increase productivity and quality which are the cherished goals of any modern organization.
- **Quality:** Help to increase quality outcome of organization as well staffs by decreasing of obsolescence

1.4. Benefits of Training

- Improving Morale: Possession of needed skills help to meet such basic human needs as security and ego satisfaction. Collaborate personnel and human relations programmes can make a contribution toward morale and energize meaningful work down with knowledge, skill and pride.
- Increase ownership: Training opportunities creates a sense of belongingness and satisfaction among the employees which makes employees more concern and responsible to the organization and the tasks assigned. Training creates confidence and feeling of well being of employee or group of employee.
- Reduced Supervision: The trained employee is one who can perform with limited supervision. Both employee and supervisor want less supervision but greater independence is not possible unless the employee is adequately trained.
- Reduced Working Accidents/Mistaken: More accidents are caused by deficiencies in people than by deficiencies in equipment and working conditions. Proper training in both job skills and safety attitudes should contribute toward a reduction in the mistaken
- Increased Organizational Stability: The ability of an organisation to sustain its effectiveness despite the loss of key personnel, can be developed only through creation of a reservoir of employees.
- Organization culture: Help to increase organizational effectiveness through development healthy culture and climate inside organization with increase responsibility.
- Beside this it has benefits to develop Team Sprit among the staffs, increase healthy and safety provision during the work, develop positive image towards the organization and increase morality of staffs too.

Note: The uses/importance of training and benefits may interchangeably use. So write it in own words during the examination

2. Training in Education and Development

2.1. Training and Development

Employee training is distinct from management development or executive development. While the former refers to training given to employees in the areas of operations, technical and allied areas, the latter refers to developing an employee in the areas of principles and techniques of management, administration and organisation

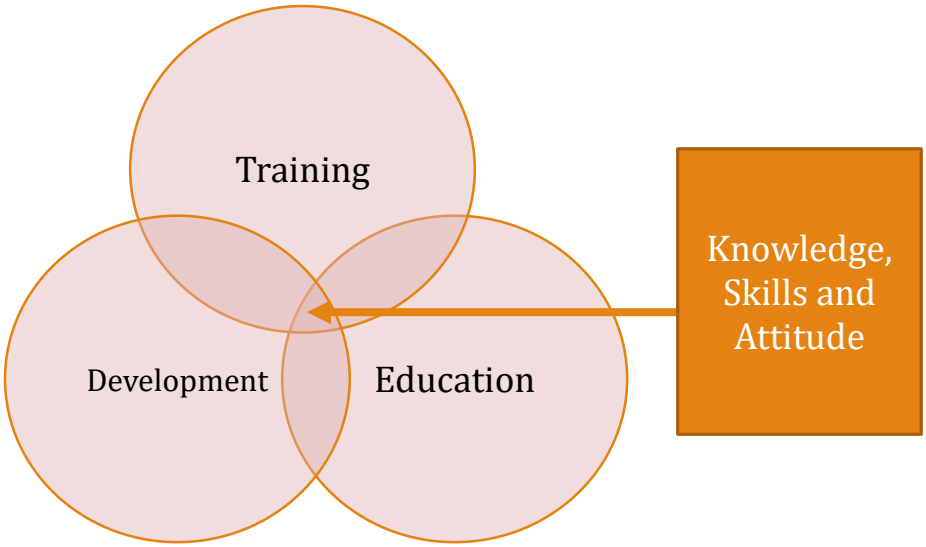
Definition

- "The systematic acquisition of attitudes, concepts, knowledge, roles, or skills, that result in improved performance at work."
  - Training
    Skill enhancement processes for non-managerial jobs
  - Development
    Skill enhancement processes for managerial jobs

Difference between Training & Development

Basis for comparison	Training	Development
Meaning	Training is a learning process in which employees get an opportunity to develop skill, competency and knowledge as per the job requirement.	Development is an educational/training process which is concerned with the overall growth and all round development of the employees.
Term	Short Term	Long Term i.e. continuous process
Focus on	Training focuses on developing skill and knowledge for the current job	Development focuses on the building knowledge, understanding and competencies for overcoming with both present and future challenges.
Orientation/Scope	Job oriented	Career oriented and hence its scope is comparatively wider than training.
Motivation	The trainees get a trainer who instructs them at the time of training.	In contrast to development, in which the manager self-directs himself for the future assignments.
Objective	To improve the work performances of the employees.	To prepare employees for future challenges.
Number of Individuals	Many individuals collectively attend the training program	Many individuals collectively attend the training program
Aim	Specific job related	Conceptual and general knowledge

Relationship between Training, Development and Education



2.2. Training and Education

- Purpose of training is to supplement education.
- Training goes hand in hand with education.
- Learning is modification behaviour through training.
- In all training there is some education and in all education there is some training.
- These two processes cannot be separated from development.

Training is concerned with increasing the technical skills and knowledge and operative skills in doing a particular job. Hence, mostly employers train their employees for a particular job. But the scope of education is broader. It includes acquiring not only technical skills and knowledge, but also behavioural skills and knowledge, general knowledge, social knowledge and the like. Thus, the purpose of education is to develop individuals.

It is concerned with the changing environmental, political and social developments. Education is not only through formal instruction in the educational institutes, but also through training, observation, awareness and so on and so forth. Training normally has a more immediate and specific utilitarian purpose Though it is difficult to differentiate training from education as they are closely interrelated, it can be said that training is part of education.

According to Dale Yoder
"The use of the terms training and development in today's employment setting is far more appropriate than training alone since human resource can exert their full potential only when the learning process goes far beyond simple routine."

Training Needs Assessment

Introduction of Training Need Identification (TNI) and TNA

Training needs are hidden in the gaps between ideal performance and reality. Training (a performance improvement tool) is needed when employees are not performing up to a certain standard or at an expected level of performance.

The difference between actual level of job performance and the expected level of job performance indicates a need for training. The identification of training needs is the first step in a uniform method of instructional design. A successful training needs analysis will identify those who need training and what kind of training is needed.

Training Needs Assessment definition: The process of identifying training needs in an organization for the purpose of improving employee job performance.

Now there is no so quite difference between TNI and TNA. Both are the process to identify the essentiality of training types, volume and area. However, that TNI is part of TNA. Generally the TNI is conducted before TNA. TNI basically identify whether there is necessary of training or not and TNA identify the types, level, area and gravity of training.

Difference between TNA and TNI

Training Need Identification (TNI)	Training Needs Assessment (TNA)
1. TNI should be carried out before TNA 2. TNI is precursor of TNA 3. TNI is performed only on task or operational level 4. TNI give the actual information on knowledge and skill of trainee that directly responsible to job performance 5. It is quite easy to do than TNA 6. Shortly and less time consuming 7. Cheap than TNA 8. Trainer could identify the TNI	1. TNA is carried out after TNI 2. TNI is successor of TNA 3. TNA is performed on three level: Organizational, task/operational and individual level 4. TNA not only give the actual information on knowledge and skill of trainee but also the managerial aspects of employer 5. It is quite difficult to do than TNI 6. Time consuming 7. A little bit expensive 8. Not only trainer but also management auditor is necessary for TNA

Why Conduct a Training Needs Assessment?

- Need to determine what or who needs to be trained
- Identify what the general content of training and support to develop training plan
- Training needs analysis works to clarify training needs
- A training needs analysis ensures training is targeting the correct competencies, the correct employees
- Provide a baseline for the evaluation of a training
- Maximize use of resources by ensuring the investment to areas of greatest priority

The Benefits of Training Needs Assessments Are:

- Assurance that training design will respond to need
- Identifies performance goals and the knowledge, skills and abilities needed by a company's workforce to achieve those goals
- Identification of non-training issues influencing performance
- Assurance of use of training function
- Establishment of a foundation for post-training evaluation
- Identifies gaps in training provision in different sectors

- Addresses resources needed to fulfil the organizational mission, improve productivity, and provide quality products and services

Training needs analysis address the following questions:

- What training is needed and why?
- Where is training needed?
- Who needs training?
- How will training be provided?
- How much will training cost?
- What will be the impact on health service provide?

2.3. Level of Training Needs

Generally, the need assessment is conducted on three levels:

a. Organizational level
b. Job or task or operational level
c. Person/Individual level

Many needs assessments are available for use in different employment contexts. Sources that can help you determine which needs analysis is appropriate for your situation are described below.

a. Organizational Analysis.

An analysis of the organization needs or other reasons the training is desired. An analysis of the organization's strategies, goals, and objectives. *What is the organization overall trying to accomplish?*

Evaluates the level of organizational performance. An assessment of this type will determine the skills, knowledge, and ability needs of an agency. It also identifies what is required to alleviate the problems and weaknesses of the agency as well as to enhance strengths and competencies. Organizational assessment takes into consideration factors such as changing demographics, political trends, technology, and the economy.

- Examines where training is needed in the organization and under what conditions the training will be conducted. It identifies the knowledge, skills, and abilities that employees will need for the future, as the organization and their jobs evolves or changes.
- Future skill needs: How is your organization changing? Examples of situations that will affect planning for training needs on the organizational level, include:
  - Installation of new technology. New technology creates the urgent need to train employees so the new technology can be running productively and safely.
  - Changes in standards and procedures. Whenever performance standards or procedure changes, the need for new skills will occur.
  - Working in a team environment. New interpersonal skills and decision-making will be needed with this type of cultural change.

Organizational analysis includes:

- What are the training needs of the organization?
- What training will support the organization's strategy, goal and objectives

Example: Internal growth strategy (growth of organization achievement, community health development etc.) would be supported by training in:
  - Creative thinking
  - New product development
  - Understanding & evaluating of services need
  - Technical competence in jobs
    - Example: What are the training needs for other strategies?
- What training will support the organization's culture, goals, & priorities?
- Learning organization: use training linked to strategic goals as a source of competitive advantage
  - Features: Learning culture, valuing employees, flexibility & experimentation, continuous learning, critical thinking, knowledge generation & sharing
- What is training budget?
- Use benchmarks of organizational health & success to identify training needs

b. Work analysis/Task Analysis (Job or task or operational level)

Analysis of the tasks being performed. This is an analysis of the job and the requirements for performing the work. Also known as a task analysis or job analysis, this analysis seeks to specify the main duties and skill level required. This helps ensure that the training which is developed will include relevant links to the content of the job.

Examines the skills, knowledge, and abilities required for related job level. Task level assessment identifies how and which occupational discrepancies or gaps exist, as well as examining new ways to do work that could fix those discrepancies or gaps.

- What are the training needs of each job in the organization?
  - Examine the job descriptions:
    - What tasks & duties are performed by each job?
    - For each task:
      - *Do new hires already know how to perform the task or will they have to be trained? (Helps to identify training needs)*
      - *What are the consequences of performing the task incorrectly? (Helps to set training priorities)*
      - *Can the task be learned on the job, or should it be taught off the job? (Helps to identify training methods)*
- Task analysis begins with job requirements and compares employee knowledge and skills to determine training needs.
- Examining job descriptions and specifications provide necessary information on expected performance and the skills employees need to accomplish their work.
- Any gaps between performance and job requirements indicate a need for task training.
- A good task analysis identifies:
  - Tasks that have to be performed.
  - Conditions under which tasks are to be performed.
  - How often and when tasks are performed.
  - Quantity and quality of performance required.
  - Skills and knowledge required to perform tasks.
  - Where and how these skills are best acquired.

c. Person/Individual Analysis.

TNA at individual level focuses on each and every individual in the organization. At this level, the organization checks whether an employee is performing at desired level or the performance is below expectation. If the difference between the expected performance and actual performance comes out to be positive, then certainly there is a need of training.

Individual assessment analyzes how well an individual employee is doing a job and determines the individual's capacity to do new or different work. Individual assessment provides information on which employees need training and what kind.

The important questions being answered by this analysis are who will receive the training and their level of existing knowledge on the subject, what is their learning style, and who will conduct the training. *Do the employees have required skills?*

Analyzes how well an individual employee is doing a job and determines the individual's capacity to do new or different work. Individual assessment provides information on which employees need training and what kind.

- Individual analysis: What are the training needs of each individual employee in the organization?
  - Examine each employee's performance appraisal
  - Do certain employees, or groups of employees, have job performance that might be improved by training that is cost-effective?

- Individual analysis targets individual employees and how they perform in their jobs
- Using information or data from an employee's performance review in determining training program needs is the most common method.
  - If an employee's review reveals deficiencies, training can be designed to help the employee meet the performance standard.

2.4. Information for determining training needs

Below analysis and information is necessary for determining training needs. components analysis of needs. Generally, six area should analysis is given below:

a. Context related information analysis
b. Participants related information analysis
c. Work related information analysis
d. Content related information analysis
e. Suitability related information analysis
f. Cost-benefit related information analysis
g. Beside this other information are also necessary

a. <u>Context analysis information</u>

- This involves an analysis of the activities (May be organizational or project) context or reasons for which the training is desired. The important questions being answered by this analysis are:
  - Why a training program is seen as the recommended solution to a business problem?
  - What has been the history of the organization with regard to employee learning interventions?

  - What are the contextual factors at learning and at practice which hinder or enable practice of the learned competency?

b. Participant training information

- Participant training needs analysis is a critical step in training needs analysis. It is the analysis dealing with potential learners and instructors involved in the process. The important questions being answered by this analysis are:
  - Who will receive the training and their level of existing knowledge in the subject?
  - What is their learning style?
  - Who will conduct the training and their expertise to do so?

c. Work analysis information

- It is an analysis of the tasks being performed. It involves examining activities, tasks, and roles of the job and the competency requirements for effective performance. Work analysis helps in ensuring that a given training method and context are aligned with the relevant job role. Work analysis seeks answers for the below questions:
  - What is the job under review and what are the main duties?
  - What are the high-level skills required?
  - To what standards are people expected to do the job?
  - Are they currently meeting these standards?
  - What tasks are performed?
  - How frequently are they performed?
  - How important is each task?
  - What knowledge is needed to perform the task?
  - How difficult is each task?
  - What kinds of training are available?

d. Content analysis information

- This involves analysis of documents, manuals, laws or procedures used on the job. It answers the questions about what knowledge or information is used for the successful performance of the job. A content training needs analysis seeks answers for the below questions:
  - Are there essential building blocks one needs to learn in order to do this job?
  - Are these building blocks of knowledge laid out in manuals or other documentation?
  - In what order and how are these building blocks normally taught?

e. Suitability analysis information

- This is the analysis of whether training is the desired solution. Training is one of the several solutions to performance problems. However, it may not always be the best solution. It is important therefore to determine if training is the right solution for a particular organizational problem. Suitability analysis considers the following essential question:
  - Is non-performance due to a lack of knowledge and skills or are there other reasons?

f. Cost-benefit analysis information

- It is the analysis of the return on investment (ROI) of training. Effective training should result in a return of value to the organization that is greater than the initial

investment to produce or administer the training. Cost-benefit training needs analysis tries to find answers to the below questions:

- Is it worth the effort to undertake the proposed training?
- What will be the return on investment of the proposed training?
- Are there any cost-benefit benchmarks for the proposed training?

g. Beside this other information are also necessary

Knowledge, Skills, and Abilities

Today's workplace often requires employees to be independent thinkers responsible for making good decisions based on limited information. This kind of work may require training if the employee does not have these skills. Below is a list of various competencies that employees may be required to posess in order to perform their jobs well.

- Adaptability, Analytical Skills, Action Orientation, Business Knowledge
- Coaching/Employee Development, Communication, Client Focus
- Decision Making, Fiscal Management
- Innovation, Interpersonal Skills, Leadership
- Risk Management, Planning, Problem Solving
- Project Management, Results Orientation, Self-Management
- Teamwork and Technology adaptability

Conducting a Performance Analysis

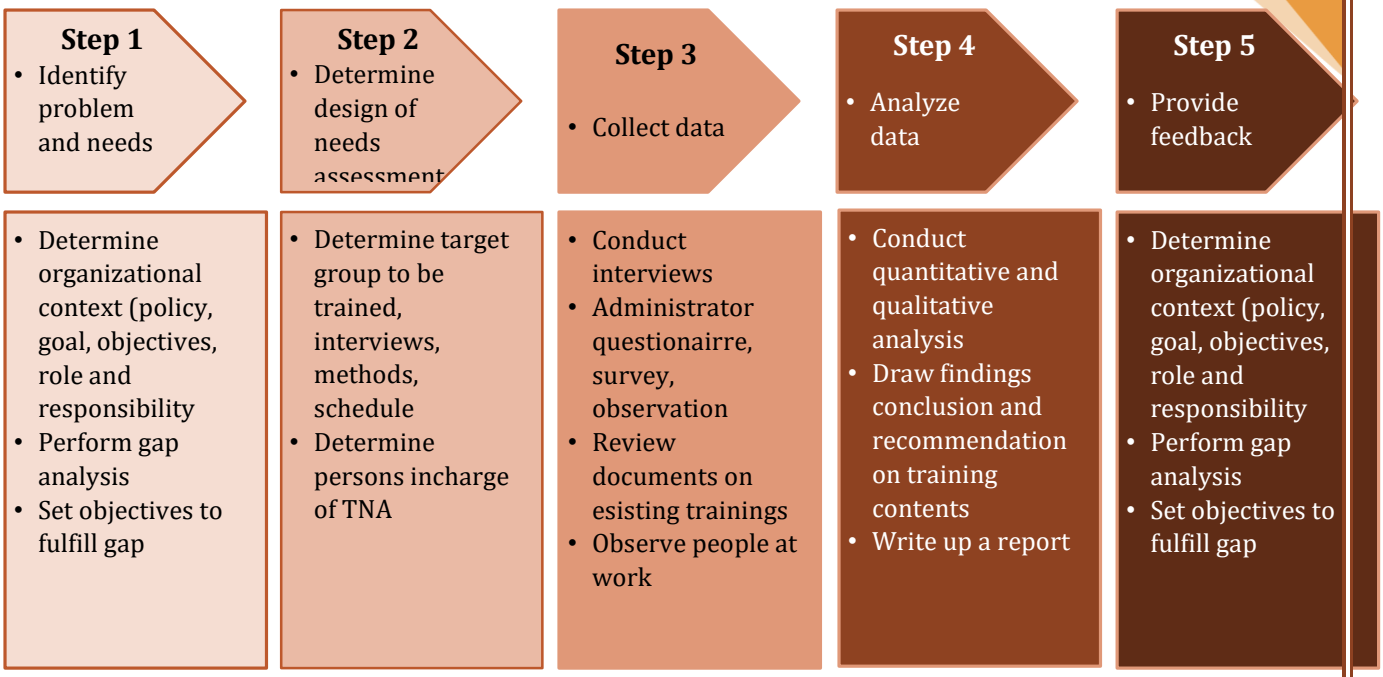
This technique is used to identify which employees need the training. Review performance appraisals. Interview managers and supervisors. Look for performance measures such as benchmarks and goals.

- Quotas met (un-met), Performance Measures
- Turnover, Shrinkage, Leakage
- Daily attendance, time of availability
- Spoilage, Losses
- Safety Incidents
- Absenteeism, Units per Day, Units per Week
- Clients Complaints

2.5. Methods of determining training needs

The processes of Training Needs Assessment can be divided into five steps:

i) Identify problem and needs
ii) Determine design of needs assessment
iii) Collect data
iv) Analyze data; and
v) Provide feedback.



Step 1: Identify Problem and Needs

- The first step in TNA is to identify problems and needs. Before TNA is conducted, it should be probed whether training is needed. In the public sector, it is important to identify organizational context in such aspects as policy, goal, roles and responsibilities.
- Realizing the policy direction of the organization, performance analysis known as "gap" analysis is conducted to look at an official's current working performance and knowledge and identify whether an official is performing as desired based on given roles and responsibilities.
- Identifying the gaps. Gaps can include discrepancies/differences between:
  - What the organization expects to happen and what actually happens.
  - Current and desired job performance.
  - Existing and desired competencies and skills.

Step 2: Determine Design of Needs Analysis

The second step in TNA is to determine the following:

- Target groups to be trained
- Interviewees
- Survey methods
- Survey plan including schedule to be conducted TNA and persons in charge of TNA.
  - Those items become the basis for a training course designer to either create a new training course, identify an existing one that can fulfill the need, or obtain one externally.
- Target Groups
  - The survey must clearly define the target group of the training, i.e., target population. Although no strict rules for defining exist, the target population must be defined in line with the objectives of TNA.

- The survey should produce the following elements in its report: training subject(s); importance of the training; time requirements; current target group; potential target group; frequency of training; and required outputs of the training.

Step 3 : Collect Data

- There are various methods to collect information for your TNA, which can be utilized individually, or in combination with each other. It is advisable to use more than one method to get a comprehensive overview of the needs of the sector/region.
- Data gathering is cornerstone of any needs assessment project.
- Can be time consuming.

Step 4 : Analyze Data

- Assuming that the needs assessment identifies more than one training need, the training manager, working with management, prioritizes the training based on the urgency of the need (timeliness), the extent of the need (how many employees need to be trained) and the resources available. Based on this information, the training manager can develop the priority order of training instructional objectives for the training and development program.
- All three levels of needs analysis are interrelated and the data collected from each level is critical to a thorough and effective needs assessment

Step-5 : Provide feedback

- Determine organizational context (policy, goal, objectives, role and responsibility
- Set objectives to fulfill gap
- Provide types of training to be provide, training design type (instructional methods, instrumentation, necessary logistic items etc.)
- Recommended evaluation methods

2.6. Instruments for training needs survey (tools)

There are various methods to collect information for TNA which can be utilised individually or in combination with each other. It is advisable to use more than one method to get a comprehensive overview of the needs of the sector/region. Typical methods of collecting information for your TNA include:

1. Surveys
2. Focus groups
3. Individual interviews
4. Observation
5. Reviewing existing documents

The choice of methods to be employed in the TNA will vary depending on the circumstances of the organization status, networking, objectives of TNA, Job description of employee/ possible trainee.

Surveys

Surveys are beneficial because many people can be polled in a short period of time. They can be easily analysed and be quite cheap to administer. Surveys can provide first level data, which can then be explored deeper with focus groups.

Surveys should take the form of a questionnaire and should include

a. Close ended (Structured)
Close-ended questions require the respondent stay within certain parameters set by the person who created the survey. As the answers are limited, tabulating the data is quite simple.

b. Open-ended questions (Unstructured)
Open-ended questions allow the respondent to provide more feedback and introduce new ideas that may not have been considered initially, although tallying the results may be more difficult.

c. A series of both (Mixed or semi structure).
A good option during the creation of a survey would be to include a combination of both close-ended and open-ended questions.

Focus Groups
Focus groups allow for small group interaction, allowing the network to uncover details about their target audience and their requirements. Brainstorming is encouraged allowing for an exchange of new ideas and what training may be needed. Focus groups need to be carefully planned facilitated discussions that obtain thoughts and views from participants on areas such as:

- Challenges faced by employee
- Training needs and skills deficiencies
- Common training and development needs; Current training approaches and providers
- Review of what types of training work best for this target group/sector
- Identify new training the network could develop
- Any regulatory requirements for training or changes in this arena

Individual Interviews
These can be an efficient, flexible and rewarding way of gathering information from employee. Interviews must be conducted in a consistent manner and be conducted with precision and accuracy. A comparison should be made of what employees are currently doing and what will be expected of them.

Discussions and meeting with relevant Stakeholders
A number of key stakeholders should be consulted where appropriate.

- Workshop
- Key informant interview
- Group discussion

(Secondary Data) Records and Report Studies
Records and report studies are secondary sources of data that already exists in the organisation. These can be used to supplement the findings of the questionnaire. Productivity, sales and operating ratios are some of the items that may be compared to pinpoint an individual need. Records and report studies are historical in nature, and may not reflect the current situation. They should be only used as checks and clues in combination with other methods of needs assessment.

Job analysis and Performance Reviews
Generally, job analysis develops precise information about an actual job; on-the-job performance is covered in the performance reviews. Jobs can be broken down into manageable segments for the purposes of both training and appraisal.

The challenge of this method is that these techniques are time consuming and difficult for people who are not trained in job analysis techniques. Many supervisors dislike reviewing their

employees' inadequacies with them personally, and the individual training needs that surface are sometimes difficult to translate into organisational needs.

Advantages and disadvantages of using TNA methods

Method	Advantages	Disadvantages
Interviews (one –on-one)	• Opportunity to provide opinions • Can monitor verbal and non-verbal responses	• Time consuming • Interviewer may influence responses
Interviews (focus group)	• Can provide deep insights by synergetic effect of the group.	• Some interviewees can lead the interview in an un-effective way • Facilitation skill of interviewer may influence the responses
Questionnaires	• Save time, economical to administer • Can cover a large number of participants	• Difficult to prepare • No. of questions is limited
Observation	• Easy to see a skill being performed competently • Non-verbal language can provide valuable information	• Only surface information • Is open to misinterpretation

Training Process

The **Training Process** comprises of a series of steps that needs to be followed systematically to have an efficient training programme. The Training is a systematic activity performed to modify the skills, attitudes and the behavior of an employee to perform a particular job. *(Detail in below in other topics)*

Training cycle

The Training Cycle begins long before the training program is conducted and continues after the program has been completed. The figure is an illustration of the five stages of The Training Cycle.

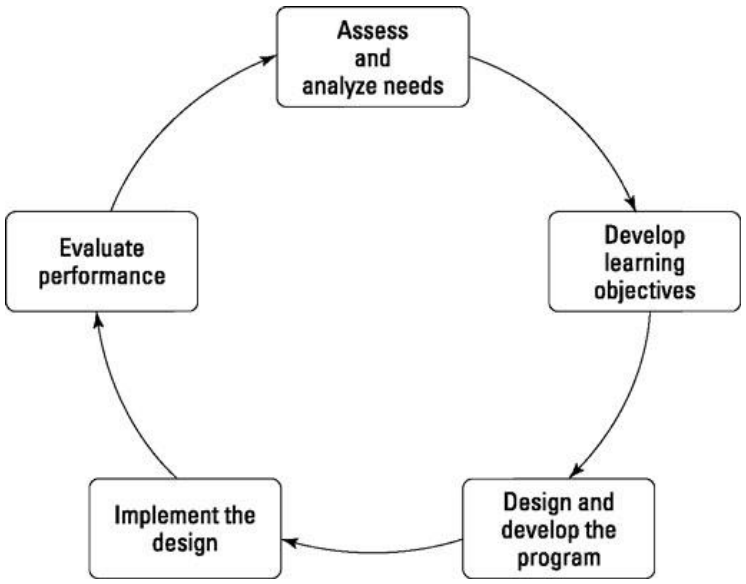


Fig. Training Cycle.

a. Assess and Analyze Needs

This stage of The Training Cycle is called *analysis* (TNA). Generally, you need to conduct an assessment and analyze the data, to identify specific needs. There are two main reasons for completing an assessment and analysis.

- The analysis should tell you exactly what (content) should be taught and how (by what methodology) it should be taught in the training session.

The goal in collecting this data is to determine the gap between a job requirement and an individual's actual skill or knowledge. (Detail in TNA section above)

b. Develop Objectives

After determined that there is a legitimate training need, the next step is to state what and why training to accomplish. You do this by writing objectives. There are two kinds of objectives from three perspectives used in training:

- **Training objective:** This is statement of overall training looking for
- **The learning/performance objective:** This is a statement of the performance (knowledge or skill) that is desired after the training has been conducted.
  (Somewhere the training objective and learning objective could merge)
- **The session objective:** This is a statement of what the instructor hopes to accomplish during the training session. This may be an outcome, or it may be a description of what the instructor plans to do in order to accomplish the learning objectives.

c. Design and Develop the Program

After you determine the objectives there should initiate the design activities. There are many things to consider in designing a training program.

If haven't already design set, then will decide the type of delivery that will be the focus to achieve the best results: onsite classroom, virtual classroom, self-paced e-learning, performance support tools, self-study, or a combination of these and others in a blended learning solution. What questions will help determine the location of the training?

- How many participants need new knowledge and/or skills?
- Where are participants located?
- How much time is required?
- How much consistency is needed?
- When is training required?
- How many participants will be in each class?
- What level of trainer expertise will be required?

It includes also decide whether to design the content at all. It includes identify the content, methods, developing the materials.

- What participant materials do the learners need?
- What audiovisual materials and equipment will you use? If it is an online course, what technical support will you require?
- What type's job aids?

d. Implement the Design

This is The Training Cycle stage where you actually conduct the program. A trainer completes a huge amount of preparation before the program. Even after an excellent job of preparing, there is no guarantee that the program will go off without a hitch. That's why some trainers pilot a program with a group of pseudo-learners who provide feedback before the session is ready for prime time.

The implement have four step to preparation and conduction

- Before the training implementation

- Just before the training implementation
- During the training implementation
- After the training implementation

e. Evaluate Performance/Evaluation

When it's over, it's not over. The evaluation stage is an important part of The Training Cycle for three reasons.

- First, the evaluation tells you whether or not the objectives were accomplished.
- Second, information from the evaluation stage should be fed into the assess and analyze stage. It is used to improve the training program should it be conducted again.
- Third, help to evaluate the job performance after receiving the training (At job place level)
- Finally, evaluation information serves as the basis for determining needs for future programs or other changes an organization may need to make

Roles of Training in HRD

Most organisations look at training and development as an integral part of the human resource development activity.

Technically training involves change in attitude, skills or knowledge of a person with that aimed to improve or develop additional competency or skills in an employee on the job one currently holds in order to increase the performance or productivity.

While designing the training program it has to be kept in mind that both the individual goals and organisational goals are kept in mind. Training improve the competencies in a way that a win-win is created for the employee and the organisation. As stated, HRD is a series of organised activities conducted within a specified time and designed to produce behavioural change. HRD is defined and interpreted in many ways by many scholars and academicians.

Swanson and Holten (2001) defined HRD as "A process for developing and unleashing human experience through organisation development and personal training and development for the purpose of improving performance."

Mclean & Mclean (2001) defined HRD as "Human resource development is any process or activity that, either initially or over the long term, has the potential to develop adults' work-based knowledge, expertise, productivity, and satisfaction, whether for personal or group/team gain, or for the benefit of an organisation, community, nation or ultimately, the whole community."

M. J. Arul (1989) defined HRD as "HRD is a set of inter-related activities, by which human potentialities are assessed, selectively upgraded and appropriately deployed for achievement of envisioned goals that foster human dignity."

Training and Development simply defines HRD as "HRD is the integrated use of training and development, organisational development, and career development to improve individual, group and organisational effectiveness." In all these different definitions, training is identified as an important element of HRD. Normally identified 3 elements of HRD namely;

1) Training and development
2) Organisational development
3) Career development

Types of Training

There are various types of trainings that can be applied on the basis of subject matter and types of jobs. Some of the common types of training are listed below.

- Orientation
- Pre-service training
- In-service training (Basic and refresher training)
- OJT (On the job training and Off the job training)
- Specialized training
- Special purpose training

Training could be categories as below

Content gravity	Time period	Specific	Skill	Time period in relation to Job	
• Basic training • Refresher training • Comprehensive training (Specialized training)	• Short term training • Long term training	• Specialized training • Special purpose training	• Competency based training	• On the job training (In service training) • Off the job training	• Preservice training • In-service training

1. Orientation (Induction)

Introduction:

Induction training is given immediately after employment to introduce the new employee to the organization and its concerned aspects like organizational history, policy, strategies, rules, procedures, facilities, working condition and so on. This type of training may range from brief informal introduction to lengthy formal programs; some organization conduct formal classroom orientation training for new employees.

Induction begins on the first day the new employee is on the job (Rogers & Olmsted, 1957); and can be regarded as a tool for the socialization process of new employees. Induction training for all new personnel should develop an attitude of personal dedication to the service of people and the organization. In fact, the most favorable time for gaining employees' attention and for moulding good habits among them is when they are new to the job. This kind of training supplements whatever pre-service training the new personnel might have had (Halim and Ali, 1988).

Orientation is the simplest, basic and surface based training which gives general or surface knowledge on any new activity, organization or environment.

(***In Nepalese context:*** NHTC supports the divisions and centers to develop orientation packages and prepare pools of trainers for conducting orientations for health and non-health workers including for Health Facility Operation and Management Committee (HFOMC) members and on Appreciative Inquiry (AI). NHTC has begun providing induction training for all health service groups from 2072/73. The one-month courses (24 days) are provided for all health service disciplines.)

Objective:
To make trainee able to cope up with the new activity, new organization and new environment by providing general ideas

Duration: Orientation is generally of very short period ranging from an hour to one days to three month.

Merits:

- Orientation is one of the simplest, cheapest and easiest method.
- It increases adaptability of individuals to new activity, organization or environment.

Demerits: As orientation does not provide detailed knowledge, further information may be required for increased understanding.

When to use: Prior to involving individuals to new activity, organization as well as new environment

Examples: Induction of Public health officer, medical officer etc

2. Pre service training

Introduction:
Pre-service training is a process through which individuals are made ready to enter a certain kind of professional job like as agriculture, medicine, engineering, etc. This type of training is also considered as technical education and/or vocational training which focus more in practical or skill development. In this type of training, individuals have to attend regular classes in a formal institution and need to complete a definite curriculum and courses successfully to receive a formal degree or diploma. They are not entitled to get a professional job unless they can earn a certificate, diploma, or degree from the appropriate institution. Pre-service training contents emphasize mostly technical subject matter such as crops, animal husbandry, fisheries, medical, nursing, laboratory, etc.

- Pre service training is also referred to as education building training in Nepal. May also known as formal or informal education process to get certificate for future job alignment.
- It is the process of acquisition of knowledge and skill regarding a specific service a person is assigned to do in the near future.

(In Nepleae context: NHTC provides two types of pre-service trainings; the Diploma in Biomedical Equipment Engineering (18 months) and Anaesthesia Assistant Course (1 year))

Objective:
To make trainees competent to perform future job course by giving in depth knowledge through specific academic process .

Duration: In Nepal, the duration of pre service training ranges from six month to maximum four years months.

Merits:

- It covers larger dimensions of skills and attitudes regarding a specific course provision.
- It increases knowledge and competency of an individual to perform job.

Demerits:

- It may take quite long period of time and expensive as well.
- As it covers in depth information, sometime it may create confusion among employees about a specific service.

When to use: Prior to employment.

Example: Upgrading course (Sr AHW etc) Intermediate, Bachelor and post bachelor course

3. In service training (On the job Training)

Introduction:

In-service training is a process of staff development for the purpose of improving the performance of an incumbent holding a position with assigned job responsibilities. It is the kind of training provided to those individuals who have been performing a particular job. It promotes the professional growth of individuals. "It is a program designed to strengthen the competencies of extension workers while they are on the job" (Malone, 1984). In-service training is problem-centered, learner-oriented, and time-bound series of activities which provide the opportunity to develop a sense of purpose, broaden perception, and increase capacity to gain knowledge and mastery of techniques.

In-service training may broadly be categorized into five different types –

- Induction or Orientation Training,
- Foundation/Basic Training,
- On-the-Job Training,
- Refresher or Maintenance Training, and
- Career Development Training.

All of these types of training are needed for the proper development of extension staff throughout their service life.

Objective:

- To make employee competent in new technology and new job roles
- To provide relaxation, refreshment, enthusiasm and decrease the turning over among staffs

***Duration*:** In service training usually, do not have exact time duration. It generally ranges from 1 day to 6 months in Nepal. However the formal education provide during the job period that may extend the duration of formal academic training.

Merits:

- It increases adaptability to new job roles.
- It brings enthusiasm relaxation and decreases turn over.
- Make up to date for innovation, findings, methodology etc.
- It motivates employees as well as helps in career development.

Demerits: Sometimes irrelevant and duplicated training may be provided to staffs which may cause wastage of resources.

When to use: Prior to introduction of new job roles, new technology and upgrading of staffs

In context of Nepal

Types of upgrading (Special Purpose) and competency and clinical-based in services training

Upgrading courses	***Competency and clinical based courses***	
• Senior auxiliary health worker training (6 months)	• Skilled birth attendance • Advanced skilled birth attendance	• Mid-level practicum (MLP) • Palliative care • Pediatric nursing care • Gender based training

Upgrading courses	***Competency and clinical based courses***	
• Senior auxiliary nurse-midwife (6 months) • Auxiliary nurse-midwife Padnam (P) (6 months) • Auxiliary health worker-P (6 months) • Auxiliary health worker(15 months) • Auxiliary nurse-midwife (18 months)	• Rural ultrasonography (USG) for senior nurses • Medico-legal • Non-scalpel vasectomy • Intrauterine Contraceptive Device (IUCD) • Postpartum intrauterine contraceptive device (PPIUCD) • Minilaps • Implants • Safe abortion services • Comprehensive abortion care • Medical abortion	• Clinical training skills (CTS) • Operation theatre technique and management (OTTM) • Infection prevention (IP) • Mental health • Comprehensive family planning (CoFP) counseling • Primary trauma care (PTC) and emergency trauma management (ETM) • Adolescent and sexual reproductive health (ASRH)

a. Basic/Foundation training:

Introduction:

It is a kind of training that provides fundamental knowledge on any topic ranging from simpler to complex. Basic training is also appropriate for newly recruited personnel. Besides technical competence and routine instruction about the organization, every staff member needs some professional knowledge about various rules and regulations of the government, administrative capability, communication skills, leadership ability, coordination and cooperation among institutions and their linkage mechanism, report writing, and so on. This type of training is made available to employees to strengthen the foundation of their service career. This training is usually provided at an early stage of service life.

(***In context of Nepal:*** Basic trainings are organized for female community health volunteers (FCHVs) who are newly recruited by the local mother's group among the member. The duration of this course is 18 days.)

Objective: To make an individual competent to perform specific task in career development phase

Duration: The time duration of basic training ranges from 7 days to 3 months.
Merits: It prepares an individual as a competent human resource.

Demerits: It may be expensive.

When to use:

- Prior to introduction of new job roles, new technology and upgrading of staffs
- This training could provide on the job as in-service training
- Training could provide off the job training also to make capable prominent HR for job market.

Example: Computer basic training, Family planning basic training, proposal development training etc.

b. Refresher training:

Introduction:

It is a kind of training provided to already train individuals in the same field for giving knowledge regarding new updates. Refresher training is offered to update and maintain the specialized

subject-matter knowledge of the employees. This type of training keeps the concerned personnel updated and enables them to add to the knowledge and skills they have gained already.

This training usually deals with new information and new methods, as well as review of older information, methods and materials. Refresher training aims at avoiding obsolescence. For e.g. If a group of employee is provided the training on Family Planning, then the refresher training is conducted after sometimes to refresh and update the knowledge, to familiar the employees if there occurs some changes in the methods & procedure of family planning, and also to improve their further skills based on the present performance.

This type of training is needed both to keep employees at the peak of their possible production and to prevent them from getting into a rut (Van Dersal, 1962).

(***In Nepalese context:*** A range of refresher trainings are conducted as per the needs of divisions and centers to develop the skills for implementing new programmes and to improve job performance. These include refresher training courses for FCHVs and skilled birth attendants (SBAs))

Objective: To make trainee updated regarding new technology and new activities

Duration: It usually ranges from 1-7 days.

Merits:

- It increases understanding on new ideas, updates and technologies.
- It does not require any special extra equipment and so it is cheaper.
- It motivates staffs and removes burn out stage.

Demerits:

- It is limited among those who have already taken basic training.
- Sometime, resource may go wastage when specific objectives are not set.

When to use: Can be given at any point of time but only those person who already get basic training on relevant subject.

4. Off the job training (OJT):

Introduction:

It is a kind of training provided to individuals after completion of specific academic course or training course in order to enhance their skills. Internships are also a part of OJT. OJT is given to the employee at the time by when he/she is engaged in a particular job. OJT uses more experienced and skilled employees to train less skilled and experienced employees. OJT takes many forms and can be supplemented with classroom training. Included within OJT are the job-instruction technique, apprenticeships, coaching, and mentoring.

This type of training is provided by the superior officer or the subject-matter specialists to the subordinate field staff. This training is generally problem or technology oriented and may include formal presentations, informal discussion, and opportunities to try out new skills and knowledge in the field. The superior officer, administrator, or subject-matter specialist of concerned department must play a role in providing on-the-job training to the staff while conducting day-to-day normal activities.

Objective:

- To enhance human skills
- To make human resource more competent to perform job in near future

Duration: It ranges from 1 month to one year.

Merits: It aims to prepare an individual too perform specific tasks in the near future.

Demerits: It may be expensive and take quite long period of time.

When to use: After completion of specific academic course

Examples: Medical internship training, Public health practum etc

5. Specialized training:

Introduction:

It is a kind of training designed to make individuals specialist in a specific field. In this type of training, there is a concentration or specialization upon certain subject matter in which employees receive knowledge and impart skill in concerned area. The objective of this type of training is to increase knowledge and skills in specialized area.

Objective: To produce specialists in specific field

Duration: It usually relatively covers longer time period.

Merits:

- It provides enriched and in-depth knowledge and skill on a specific field.
- It produces competent human resource.

Demerits:

- It is expensive and difficult method of training.
- It can be boring at times as it covers in depth knowledge regarding specific field.

When to use: after an individual completes specific academic course

Examples: Comprehensive Abortion Care (CAC) training for Medical Officers; ICU, OT training for nurses, etc

6. Special purpose training:

Introduction: It is a special kind of training provided to specific individuals under specific regulation. In this type of training, there is a specific purpose for defined period of time upon certain subject matter in which employees receive essential knowledge to develop their career ladder.

Objective:

- To create a backbone for the promotion of staffs
- To upgrade human resource and offer benefits

Duration: No specific duration

Merits: It is usually conducted for promotion and so increases motivation and decreases turn over.

Demerits:

- It does not necessarily groom an individual in his/her job roles.
- Sometimes resource may go wastage.

When to use: Prior to promotion of an individual especially when he/she does not have strong academic background

Examples: Sr AHW, Sr, ANW, upgrading training

In context of Nepal

Types of upgrading (Special Purpose	
• Senior auxiliary health worker training (6 months) • Senior auxiliary nurse-midwife (6 months) • Auxiliary nurse-midwife Padnam (P) (6 months)	• **Auxiliary health worker-P (6 months)** • **Auxiliary health worker(15 months)** • **Auxiliary nurse-midwife (18 months)**

Training Design:

Training Design is a systematic process of specifying learning objectives and the content to be presented depending on both the trainers and participants whereas Development is the actual creation (production) of the content and learning materials based on the Design phase.

Content development, lesson plan, material development and delivery.

Content Development

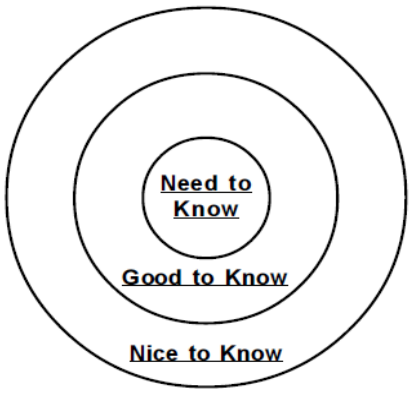
After designing the training objectives, a trainer must select the content of the training. The content is the information that will best help trainees learn the desired knowledge and skills.

Process to determine the training content?

There is never enough time to completely cover a topic in training, so the training designers must decide what to include and what to leave out. When determining the content of a training program, a trainer should select those topics that address the training objectives and therefore meet the training needs of the trainees that were assessed earlier.

To identify the necessary topic areas to cover in the training, the trainer must consider the relevance of the topic information to the training objectives. Information can be prioritized as follows:

- "Need to know": Some content is critical for participants to know in order to achieve the training goals. Participants cannot leave the training without mastering the critical content.
- Some content is "good to know" – if time allows, participants should learn this content, because it supports the training goals.
- Some content is "nice to know," but it is not really relevant to the program goals. This content should only be included in the training if the participants completely understand the main content.



Example: Think of a training in which the overall goal is "for mothers to use oral rehydration therapy correctly with their children." These are some possible learning objectives:

- Need to Know: By the end of the session, the mothers will be able to demonstrate the steps in oral rehydration therapy preparation by mixing the ingredients.
- Good to Know: By the end of the session, the mothers will be able to list the advantages of using oral rehydration therapy.
- Nice to Know: By the end of the session, the mothers will be able to identify the chemical composition of the oral rehydration therapy.

Organizing content

After selecting the topics to be covered (content of a training program), a trainer should sequence the topics so that they fit together in a logical order and build on one another to form a systematic learning experience. A trainer should start with topics that require participants to share old experiences before creating new ones, to learn simple tasks before attempting complex ones, and to share concrete ideas before considering abstract ones.

Curriculum Development

Training curriculum is a framework which is designed to provide required knowledge and skills to trainees who are in need of developing such competencies within them, for the purpose of effective performance in a particular job. All trainers should be conversant with the curriculum development process. Training curriculum is needed to

- Provide a layout of whole framework of learning situation in the form of problem to be addressed the required knowledge, skills & competences, and the resources and logistics.
- Provide learners a whole range of what is expected of them, i.e. all the activities they are expected to take part in and how their progress is to be determined.
- Enable trainers in carrying out an analysis of the overall training environment.
- Provide for easy evaluation of effects and impacts of training.

A basic training curriculum sample is given below.

Elements	***Description***
Course Title	Should be expressive of the character and purpose of training.
	E.g. "A 7 days training course in Community Based Neonatal Care Practice for FCHVs in Baglung district."
Aims	The broad intended result the training will contribute.
	E.g. To prepare FCHVs with skills for managing the minor neonatal problems in the community.
Target Group	FCHVs of X Communities
Course Objectives	The specific intended results that the training will contribute.
	E.g. By the end of the training, the FCHVs will be able - to identify & explain the different problems of newborn and neonates; - to illustrate the skills of newborn care; - to explain the community based management of pyrexia, hypothermia, and infection in neonates, etc.
Course Design	Structure is stated and useful details of how training is to be implemented are given. State whether it is to be done in phases, terms/week/modules. Is it purely theoretical or skill based? Will it be residential or concurrent?
Course Contents	The list of topics in logical sequence. Should be in line with intellectual capacities of trainees, approach from known to unknown, simple to complex, depict possibility of deeper understanding of the subject, and be limited but highly inclusive.
	Module 1 Universal Precaution

Elements	***Description***
	Lesson 1 Hand Washing Procedure Lesson 2 Six Cleans of Delivery Module 2 New Born Care Lesson 1 Safe Cord Cutting Practice Lesson 2 Initiation of Respiration Module 3 Breast Feeding Lesson 1 Initiation of Breast Feeding Lesson 2 Exclusive Breast Feeding Lesson 3 Alternative Feeding
Methods	State how the subject matter is delivered to the trainees; by which way the knowledge and skills are developed.
	E.g. Lecture, Demonstration, Skill test
Resources	Human Resources i.e. Trainers, Facilitators, Moderators
	Materials and Equipments needed
Duration	Period of time in form of hours/weeks. Should be in relation to content and objectives to be fulfilled.
	E.g. 35 hours (i.e. 5 hours/day for 7 days)
Evaluation	State the method and timing of impact. How and when is success or failure to be determined and by who? The end result is often evaluated by comparing with the preset aims and objectives. The evaluation focus on - Learners change in knowledge, skills & performance - Contents, methods, facilities, logistics and facilitators

Lesson Plan

Lesson plan is an outline of subject matter to be instructed along with other related aspect of it such as course objectives, content, time duration, methods of instruction, materials to be used and procedure for evaluation. Lesson plan helps trainer to go thoroughly to the subject matter, thus instruct in an efficient and effective manner.

A lesson plan is the instructor's road map of what the learners need to learn and how it will be done effectively during the class time. Before preparing lesson, the trainer/instructor will first need to identify the learning objectives for the concern subject matter. Then, the instructor can design appropriate learning activities and develop strategies to obtain feedback on trainees learning.

Contents of Lesson Plan:

- Name and unit of Lesson
- Time Duration (total)
- Level and number of participants
- Venue
- General Objective and Specific Objectives
- Contents: Description, Methods and Materials, individual time
- Evaluation

Need and Importance of Lesson Plan:

- Lesson plan is essential for instructors to be fully aware of what they are going to teach before they can even begin to compile a plan.
- Lesson plan helps the instructor to instruct in a well organized manner of time, effort and resources.
- Lesson plans helps to evaluate and achieve the instructional objectives of the trainer. It gives a reality check of performance of every session of training.

- Lesson plan definitely improves the instruction skills of trainer.

Example of a Lesson Plan

Consideration to be taken when designing training program

The trainer – Before starting a training program, a trainer analyzes his technical, interpersonal, judgmental skills in order to deliver quality content to trainers.

The trainees – A good training design requires close scrutiny of the trainees and their profiles. Age, experience, needs and expectations of the trainees are some of the important factors that affect training design.

Training climate – A good training climate comprises of ambience, tone, feelings, positive perception for training program, etc. Therefore, when the climate is favorable nothing goes wrong but when the climate is unfavorable, almost everything goes wrong.

Module 1 – Lesson 1: Hand Washing Procedure **Time:** 1½ hour

Participants: FCHVs (15 No.) **Venue:** ……

General Objective: At the end of the session, the participants will know about the procedure of hand washing and can perform the procedure of hand washing.

Specific Objectives: At the end of the session, the participants will be able to do the followings

- mention the importance of hand washing
- explain the procedure of hand washing
- illustrate the six steps of hand washing procedure

Contents and Description: Following teaching learning activities will be carried out during the instruction.

Content	***Description***	***Methods*** / ***Materials***	***Time***
Importance of hand washing	Hand washing is needed to prevent infection to self, mother and newborn.	Lecture / Meta-cards	5 mins.
Procedure of hand washing	a. …… b. …… c. …… d. …… e. …… f. ……	Lecture & Demonstration / Poster	10 mins
Illustration	Illustrate the hand washing procedure to the participants by doing self.	Demonstration / Soap, water, bucket, bowl, towel	5 mins
Evaluation (Knowledge)	Why hand washing is important? Explain the procedure of hand washing.	Question and answer	10 mins
Evaluation (Performance)	Ask the participant to perform hand washing procedure one by one and evaluate the procedure.	Soap, water, bucket, bowl, towel	60 mins

Trainees' learning style – The learning style, age, experience, educational background of trainees must be kept in mind in order to get the right pitch to the design of the program.

Training strategies – Once the training objective has been identified, the trainer translates it into specific training areas and modules. The trainer prepares the priority list of about what must be included, what could be included.

Training Topics – After formulating a strategy, trainer decides upon the content to be delivered. Trainers break the content into headings, topics, ad modules. These topics and modules are then classified into information, knowledge, skills, and attitudes.

Sequence the contents – Contents are then sequenced in a following manner:

- From simple to complex
- Topics are arranged in terms of their relative importance
- From known to unknown
- From specific to general
- Dependent relationship

Training Tactics – Once the objectives and the strategy of the training program becomes clear, trainer comes in the position to select most appropriate tactics or methods or techniques. The method selection depends on the following factors:

- Trainees' background
- Time allocated
- Style preference of trainer
- Level of competence of trainer
- Availability of facilities and resources, etc

Support facilities – It can be segregated into printed and audio visual. The various requirements in a training program are white boards, flip charts, markers, etc.

Constraints – The various constraints that lay in the trainers mind are:

- Time
- Accommodation, facilities and their availability
- Furnishings and equipments
- Budget
- Design of the training, etc

Source: http://trainingandevelopment.naukrihub.com/training-design.html

Material Development

Appropriate methods for training are specified in the design phase which is later applied in delivering the training.

Design and Development of Training Materials:

All the materials that are required during the training should be designed and developed appropriately on time such as training curriculum and manuals, electronic equipment, stationary, special equipment as per the content of training, and other materials of teaching and learning.

Training or Instructional Aids are the materials that support instructional methods that a trainer has chosen. These materials can be visual, audio or audiovisual. A visual aid is anything the trainee can see that helps the trainer get his/her message across. Examples of visual aids

include posters, pictures and models. Audio aids help trainees learn by sound. Notable examples are radio and cassettes. Audiovisual aids combine visual and audio aids: they help a trainee learn by sight and sound. Examples include video, TV, and films.

Training Manuals/modules are the instructional booklets or handbooks that are often used in disseminating the related subject matter in a sequential manner. Training manuals are the appropriate and essential guides for trainers. Training manuals let the trainees concentrate on and partake in the training during the training session instead of taking detailed notes. After the completion of training, trainees can use the manuals for reviewing the subject.

Developing a training manual is an important part in designing a formal training program. A formal training manual ensures consistency in the presentation of the training program. Another major advantage is that all the training information on skills, processes, and other information necessary to perform the tasks is together in one place. Training manuals should support the training objectives.

Training manuals can be designed to be used as:

- Work books – often used in training sessions. It provides basic information, examples and exercises.
- Self-paced guides – designed for trainees to work through on their own.
- Reference manuals – for containing detailed information on processes and procedures.
- Handouts – provide general information to support training done during the session.
- Job aids – provide step-by-step instructions to be used in the work place.

The following should be taken in consideration when designing the manual:

- Contents – topics, tasks, procedures and other information arranged in a logical sequence and broken down into small units;
- Participants – their academic background & professional skills, working area and work experience, level of performance, etc.
- How the manual is to be used during the training session, afterwards (for revision) and/or as a reference in the work place.

Generally, training manuals consists of following elements

- Title with cover page
- Table of contents
- An Introduction page on What-How-Who - "What the Manual is about", "How to use the Manual" & "For whom the Manual is meant"
- Schedule of conducting training session
- Expanding the contents – Objectives, description, summary and evaluation procedure for each of the content; allocating them into different units and lessons.
- Placeholders for graphics
- Placeholders for work sheets
- Blank pages for further writing.
- Pre test and post test schedules

Materials	Role (how it is used)	Simple description	Component
Learner's Guide (Learner's Manual)	- (Participants) Reference for in-depth understanding of course content - (Facilitators) Base for session content	- It describes details of each topic for the course.	- All the topics are included in detail.

Learner's Workbook	- (Participants) Followed to learn in classroom - (Facilitators) Followed to facilitate by trainers	- It describes essence of each topic and activities in each session	- Topic - Sub-topics - Session Objectives - Summary of topic/sub-topics - Skills identification - Activities (exercises, case studies, etc.) - Lessons learned - Action points - Appendix (reference, support materials)
Support Materials	- (Participants) Additional activities Reference for future learning - (Facilitators) Additional materials for facilitating	- It provides additional activities - It provides additional information related to the topics	- Activities (exercises, case studies, etc.) - Activity instructions - Code of conduct - Health service system - Constitution - Policy, strategy, guidelin etc.
Presentation Materials (PowerPoint)	- (Participants/Facilitators) Material for presentation	- It describes essence of each topic	- Key points for presentation by facilitators
Facilitator's Guide	- Guide for facilitators - Standard for course content development for CSTC	- It describes how to present content and proceed with session - Details explanation of Learner's Workbook	- Facilitator's role and responsibilities - Facilitation guide and know how - Content outline - Session time lines - Appendix (reference, support materials, PPT)

Training Delivery (Detail in training implementation …….below)

To put training program into effect according to definite plan or procedure is called training implementation. Training implementation is the hardest part of the system because one wrong step can lead to the failure of whole training program.
Training implementation can be segregated into:

- Practical administrative arrangements
- Delivery/Carrying out of the training

Once the staff, course, content, equipments and other materials are ready, the training is implemented. Completing training design does not mean that the work is done because implementation phase requires continual adjusting, redesigning, and refining. Preparation is the most important factor to taste the success. Therefore, following are the factors that are kept in mind while implementing training program:

- Self preparation of trainers
- Physical setup
- Rapport building with participants
- Use of appropriate methods and materials
- Efficient and effective delivery of the subject matter

Delivery of content and materials:

The content and materials that are specified at the design phase and are constructed in the development phase are delivered as per the prepared plan in the implementation phase. In delivering trainings' content and materials, concern should be given in the followings:

- The objectives of training should be made clear to the trainees/participants.
- Provide the necessary documents like training schedule, training manuals and other materials to the trainees.
- Creating a good training climate and supportive teaching learning environment.
- Application of appropriate methods for delivering training.
- Sequential presentation of contents. (e.g. from simple to complex, known to unknown, interrelating the subject matter)
- Active participation of trainees.
- Constructive feedback.

Methods of Training Delivery:

The various methods of training can be classified as

A. Cognitive Methods
   a. Lecture
   b. Group Discussion, brain storming
   c. E-Learning (Computer and Web Based)

B. Behavioral (Simulation) Methods
   a. Simulator and Game
   b. In-Basket Technique
   c. Case Study
   d. Role Play
   e. Behavior Modeling
   f. Blending approach

C. On-the-Job Training
   a. Job Instruction Technique
   b. Apprenticeship Training
   c. Coaching
   d. Mentoring

Developing Training Program: Module Preparation

1. Preparing agenda (Scheduling)

The first step is preparing agenda during the module preparation. Give a brief description of what a trainers' and a trainees' agenda are and what needs they have to fulfil. Mention, for example, that a trainers' agenda is minutely detailed, includes the outputs of every session, and is for the trainers' use only. A trainees' agenda, however, is limited to general topics and approximate time allocations in order to offer an overview and to allow for greater flexibility. Examples of both are found below.

During the preparation of training agenda, should keep in mind the following keys

- Make relation with overall objectives of training
- Defined participants (Age, sex, education, occupation, experiences etc)
- Identify the key skill, knowledge to be upgrade and attitude to be change

Based upon that the training agenda should prepare with discussion with relevant stakeholder and scheduling that.

Example of a Trainer's Agenda

Date	Time	Material	Objectives
Opening and Introductions	8:00 - 8:45	Trainer notes for opening	"Climate setting". (a) warm, friendly atmosphere; (b) stimulate interest and curiosity; (c) enable trainees to begin thinking about gender analysis; (d) encourage trainees to get to know each other
Objectives and Methods	8:45 - 9:00	Overheads or slides	Objective clarification: (a) present statements or questions to the trainees which clarify the purposes of the workshop; (b) provide an opportunity for trainees to add objectives. Method clarification: (a) Discuss role of trainees and trainers in participatory workshop; (b) Explain Case Study method
What is Gender Analysis? Small group exercise or role play	9:00 - 9:30	Questions or role play descriptions	Issues clarification: (a) take mystery out of "gender analysis"; (b) clarify one or two key concepts; (c) facilitate participatory exchanges, e.g. One group to represent village women whilst others represent village man, city man or city woman.
Overview of Gender Analysis and forestry Plenary Session	9:30 - 10:15	Framework presentation notes plus slides or overheads	Problem identification: overview of the problems or issues with respect to gender roles and forestry Introduction to methods and skills, clarify key concepts in gender analysis, and give overview of how to use the Gender Analysis Framework. Make it relevant: explore reasons why learning about gender analysis may be important and useful to this specific group of trainees
Coffee Break	10:15 - 1030		
Introduction to Case Study	10:30 - 11:00	Slide show Projector Screen	Provide information: (a) review facts on gender roles in case study forestry project area; (b) reinforce learning from written case study; (c) visually transport trainees to project area, making issues meaningful; (d) visual relief
Introduction to small group work	11:00 - 11:10	Profile with examples	(a) objective clarification (b) method clarification (c) time allocation
Small group analysis of Case Study for Context Profile	11:10 - 12:30	Profiles, Case Study Framework	Increase information, understanding and skill: (a) Gender Analysis Framework; (b) Produce information that can be analysed; (c) engage trainees in learning.

Example of a trainee's agenda (source: G&F)

Time	Contents
8:00	Opening and introductions Workshop Objectives and Methods What is Gender Analysis? Overview on Gender Analysis and Forestry
10:00 - 10:15	Coffee Break
10:15	Introduction to Case Study: Slide Show Small Group Analysis of the Case Study The Context Profile
12:00 - 13:30	Lunch Break
13:30 - 16:30	Plenary Discussion of Case Study Findings The Context Profile

	Small Group Analysis of Case Study The Activity Profile Coffee Break Plenary Discussion of Case Study Findings The Activity Profile
16:30	Break
17:00	Day One Summary and Closure

2. Setting/formulating training (Learning) objective

Once training needs are assessed***, training objectives*** should be established. The training objective clears what has to be achieved by the end of training program i.e. what the trainees are expected to be able to do at the end of their training. Much training is wasted due to a poor match between needs and the kind of training actually delivered. This can be largely avoided through a meticulous and reflective approach to the construction of writing objectives.

Training objectives are not only for the use of the trainer, but for the trainees too. They need to fully understand the aims of training in order for them to be committed to the work and to its goals.

Construction of a set of training objectives must be based upon results of the TNA. In developing training objectives, following aspects should be addressed.

- Present level of performance or specific conditions
- Desired level of performance or specific conditions
- Nature and size of the group to be trained
- Benefits that will be realized after the completion of training
- Ways of measuring change in employee's capability.

The ***learning objectives*** of the course (Course Objectives) are the immediate outputs of the training. Learning objectives describe participants' state right after the training. This covers three areas of competency namely; Knowledge, Skill, and Attitude (KSA). It describes what participants will be able to know/understand, do, and feel. Similarly, it is also called the three domains of learning objectives namely cognitive domain, Affective domain, and Psychomotor domain.

- The cognitive domain is the knowledge that learners are to acquire,
- The affective domain describe the attitudes and feelings that learners are expected to develop, and
- The Psychomotor domain is the skills that learners are to master.

Objectives often starts by a sentence such as "At the end of the course, participants will be able to".
Here are some samples of learning objectives;

- At the end of the course, participants will be able to list three benefits of instructional design to the effectivenss of training
- At the end of the course, participants will be able to explain three models of instructional design.
- At the end of the course, participants will be able to develop lesson plans by following standard steps.

Why set learning objectives?

All the efforts in training design is aimed at achieving set objectives. It is therefore very important as a first step to clarify the learning objectives. It should be noted that evaluation of training will be conducted against these learning objectives. The purpose of the objectives are:

- To set the direction and to help participants on areas to focus on

- To guide facilitators to deliver the session in the set direction
- To provide guidance on how to evaluate the training

Characteristics of learning objectives

Clarity – the trainers and trainees must be clear about the objective. The action stated must be observable and realistic.

End Result – The trainers and trainees must identify and stress end results, changes in knowledge, skill and attitude.

Action Orientation – a well written learning objective must use action word.

Quality of learning objectives

When writing learning objectives, trainers need to consider the kind of language that will best describe what they want the participants to accomplish. The objectives should focus on actions which are clearly defined and measurable. If objectives are vague or confusing, it may be difficult to determine the actual learning that has taken place in a training programme. Learning objectives should be first of all, consistent with the overall goals of the course. In addition, the SMART rule can be applied.

SMART means;

- S Specific
- M Measurable
- A Achievable
- R Results Oriented and
- T Time Bound

FOR FURTHER STUDY

Objectives should specify the target behaviour to be attained and this should be clearly stated. Using action verbs for objectives is strongly recommended because a verb can specify the action which is also observable, thus making the objective measureable.

Since the training evaluation will be conducted against the learning objectives**, the objectives should be measurable.** By setting measureable objectives, we will clearly understand how much of the objectives have been achieved through the evaluation process. For example, when we say "able to understand A", this is sometimes difficult to measure because the meaning of the word "understand" is not clear and understanding is not visible to measure. Thus, "able to explain A" is better as it can be demonstrated and visible enough to evaluate. Other ways of describing objectives include "able to list three elements of A" instead of "explain". This is more measurable. You can use this approach in situations where participants can list three elements of A.

It should also be noted that objectives should be achievable. For example, it is not feasible to make participants great national leader in half a day. When objectives are not achievable, participants are not motivated and it is the same for facilitators as well. It is important to also make objectives appropriate for the level of the participants based on results of the TNA.

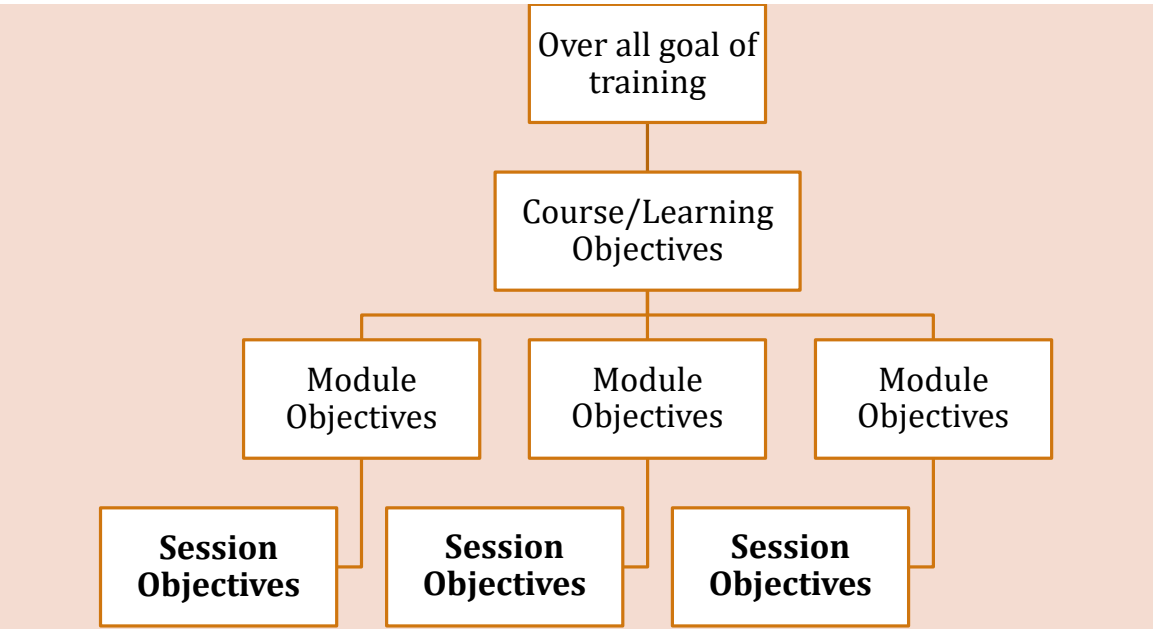
Learning objectives should be result oriented and should not focus on the learning process. Just state the result of training.

Learning objectives should also be time bound. Usually, it is specified by stating the following; "at the end of the course" or "at the end of the session", etc.

SMART is also applied in setting the overall goals of the training.

Levels of objectives

There are several levels of objective setting such as overall goal of the course, course learning objectives, module objectives, session objectives, and so forth as indicated in a chart below.



The overall goal is to be achieved after the course as the main result of the training. This goal statement guides you in setting learning objectives for the course. Module objectives are set to support course objectives, in the same way session objectives support module objectives. All these learning objectives should consistently support each other towards achieving the overall goal.

3. Development general plan for training

The general plan of training reflect about the brief introduction, rationale and training objectives. That includes the nature of participants including the trainer selection and material used. This include the following headings.

- Introduction
- Rationale of training conduction
- Goal
- Objectives of training
- Duration of training
- General Information
  - Date
  - Organized by
  - Venue
  - No. of participants
- Participant profile
  - Trainees are the participants in training whose purpose is to learn the needed knowledge and skills for the betterment of their job. Trainees, to whom the training is delivered, should have the following features:

    Participants selection indicator
    - Eager to gain knowledge and develop skills within them.
    - Should be familiar to the objectives of training.
    - Have the concerned academic and professional background of that subject matter in which the training is going to be delivered.
    - Active involvement in teaching learning process.
    - Good communication skills
    - Practice of constructive feedback.

    Participants Profile

  - Age, sex, caste, education background, years of experiences, current position and need of training
- Training materials used in training
  - Logistics (Stationary, instruments etc)
  - Validate training resources (Trainer, module/manual etc)
  - Training job aids
- Training Methodology
  - Instruction methods (Lecture, demonstration etc)
  - Instruction media nature (Video, audio or audio/visual)
- Trainers selection
  - Trainers are the important personnel in delivering the concerned subject matter to the trainees in an appropriate way i.e. effectively and efficiently.

4. Writing session objective

A learning objective is defined as a statement that describes the behavior the trainer expects participants to demonstrate as a result of the training, and can be used to evaluate the success of the session.

Each session have different session objectives because the learning outcome is different.

- Is a means of accomplishing a course objective or goal.
- Is more narrow, precise, tangible and measurable.
- Usually uses an active verb to describe what a student will know or be able to do at the end of the session.
- "Know" and "understand" should be avoided and an action verb should be used instead

(Note: Quality, criteria, charesteriustics is similar as like to training/learning objective)

5. Determining resources

For conduction of training successfully, there is need of three types of resources

- Human Resource
- Financial Resources
- Logistics Resource

Human Resource

Without competent trainers/resource person training could not achieve the training output. Before the training conduction should ensure the availability of suitable trainer. If yes we could use from trainer pool if not thet we should develop potential training by ptoviding MTOT/TOT. The selection of HR is another important part of identifying the HR. The trainer should possess the following characteristics.

> "What I hear, I forget, what I see, I remember, but what I do, I understand."
>
> - Confucius

- Knowledgeable and experienced in concerned subject matter of training
- Good instructional skills
- Able to use different approaches and techniques of instruction as per need.
- Good skills of communication, motivation and leadership
- Have taken a basic trainer course and is conversant with adult learning.
- Good networkers and resource developers
- Familiar with participant/target group
- Willing to learn from subordinates
- Good sense of humor

- Can work well with persons having a wide variety of learning styles and education.

Training Cost (Financial Resource)

Cost Factors

The cost of training requires two separate estimates. One estimate for start up costs and one for ongoing costs or, in other words, the cost of each class held. We should plan for necessary budget for proposed training.

- Preparation costs are normally expended just once to develop the class lesson plan and to obtain reusable tools and materials required to hold the classes. Tools and materials might include the one time purchase of equipment such as overhead projectors, white boards, televisions, and video cassette recorders. It may also include the cost of specialized equipment associated specifically with the training to be held. Start up cost may also include the preparation of displays, lab boards and lab areas where students will practice their new skills. This cost can vary from zero to very considerable depending on the subject of the training.

- Ongoing costs include consumable materials, replacement tools, lunch and breakfasts, room rentals, and Instructor's fees. These costs will require a detailed estimate that takes into consideration the unique aspects of the particular training being developed.

Logistics

The trainer should prepare a list of training materials and arrange them before the training starts. The materials required will depend on the resources available and the type of training. Generally the materials required include:

a. Stationary
   - Writing pads, Pens/pencils, Newsprint, Markers, Masking tape, File folders, Photocopying paper, Stapler and staples, etc.
b. Electronic Equipment
   - Overhead Projector, Multimedia, TV, Cassette Player, Recorder, etc.
c. Training manuals and materials
   - Training manuals & curriculum
   - Facilatator guide, Presentation materials (Power point)
   - Materials like poster, flipchart, flash cards, etc.
d. Special materials as per the subject of teaching
   - E.g. Family Planning devices
e. Managerial
   - Venue, chair, opening and closing ceremony materials, banner, necessary refreshment, other logistics in case of residential training (eg-room, bed personal material etc)

6. Estimate the budget

Training budget include the costs for training staff salaries, appropriate learning facilities, training materials, hardware and the cost of outside consultants. It is important that the training budget adequately cover the realistic costs associated with the training methods your business employs. The costs of training will vary enormously depending on the precise format that it takes. It's important to build in all the relevant costs in any funding bid for a project with public involvement.

The expenses associated with training events might include:

- Trainer / facilitator / speaker costs – fees, travel, accommodation, thank you payment
- Travel and accommodation expenses for participants
- Refreshment like lunch / tea / coffee

- Venue/ room hire
- Paper/printing handouts
- Materials development cost, stationary
- Hire of specialist equipment or support services, for example projector, laptop, internet access, hearing loop, interpreters or signers
- Costs of certificates or accreditation.

Factors that affect the training budget

Content:

- How many courses need to be developed?
- How much of the content is unique to your organization?
- What is the duration of each course and the total number of instructional hours?
- How much instructional material on the subject does your company already have? How happy are you with any existing training material?
- What kind of source material is available? What is the quality of that material?
- Does the material need to be translated into other languages or localized for other regions?

Participants:

- How many people need to be trained?
- How much does the audience already know about the subject?
- How comfortable are users with different types of technology?
- From where (Travel allowance) the participants attend the training?

Delivery method:

- Who will teach the courses: internal staff or external trainers?
- What type of instructional material needs to be developed?
- What delivery methods would work best for this audience (classroom-based training, self-paced web-based, webinars, mobile support)?
- How many computers are needed in the classroom?
- Is a separate training database needed?
- When does the training need to be available for use?

Examples of budgeting

S.N.	Particulars	Description	Unit	Day	Rate(Rs)	Total
1	Human Resource	Lead trainer	1	2	5000	10000
		Training facilitator	7	2	3000	42000
		Support staff	3	2	2000	12000
		Sub Total (1)				**64000**
2	Training Materials	Stationery	15	1	120	1800
		Handout	15	1	100	1500
		Certificate for both Trainer & Trainee	30	1	80	2400
		Printing	1	1	600	600
		Training materials	LS	1	800	800
		Multimedia	1	2	1000	2000
		Sub Total (2)				**9100**
3	Refreshments	Food & Snacks	30	2	160	9600
		Training hall rent	1	2	4000	8000
		Sub Total (3)				**17600**
4	Communication	Phone call cost	LS	1	1000	1000
	Transportation	Local	LS	1	2000	2000
		Sub Total (4)				**3000**

S.N.	Particulars	Description	Unit	Day	Rate(Rs)	Total
Grand Total						**93700**

Selecting Training Method According to Need Of The Trainees.

Instruction Methods

1. Lecture:

Lecture method is the most commonly used method of teaching science. Lecture method of teaching is the oldest teaching method applied in educational institution. This teaching method is one way channel of communication of information. It is a teacher controlled & information centered approach in which the teacher works as a sole-resource in classroom instruction.The lecture is best used for creating a general understanding of a topic. Several variations in the lecture format allow it to be more or less formal and/or interactive. In lecture method only the teacher talks & students are passive listeners. Since the student do not actively participate in this method of teaching, this is a teacher – controlled & information centred method

Types

Straight lecture

- Communication is one way from trainer to trainees. (Because the pure lecture provides only information, its usefulness is limited)
- It is an extensive oral presentation of material.
- During the pure lecture trainees listen, observe, and perhaps take notes.

Two way lecture (Didactic)

- Begins with an introduction that lays out the purpose, the order in which topics will be covered, and ground rules about interruptions (e.g., questions and clarification).
- Somehow the twoway communication exist through raising question and answer
- The topic areas should be logically sequenced so that the content of preceding topics prepares trainees.

Thus, an effective lecture should not contain too many learning points. Trainees will forget information in direct proportion to the amount of information provided. The only added value provided by the lecture is credibility that may be attached to the lecturer or the focus and emphasis provided by trainer presentation skills. Another major benefit of the lecture is that it is interactive and that trainees can ask questions or has the presenter change the pace of the lecture if necessary. Lecture should conclude with a summary of the main learning points and/or conclusions.

Before starting to prepare a lecture, the teacher/person must be able to answer four basic questions:-

- Who is your audience?- Who
- What is the purpose of your lecture?- Why
- How much time is available- How long
- What is the subject matter?- What

Steps:

- Prepare for lecture, become very familiar with subject matter.
- Identify and prepare the supporting aid to illustrate the point made.
- Arrange necessary logistics.

- Sequence the contents logically, sequentially and systematically, building up on previous context areas.
- Ask the question to check whether the learners are following
- Maintain eye contact with learner to assess whether they are following or not, whether they are interested or bored.
- Maintain time stipulations
- Be aware of your own body movements and facial expression.
- Speak clearly, loudly and sue the simple language.

Condition of use

- It can be useful in situations in which a large number of people must be given a limited amount of information in a relatively short period
- If limited resource available
- The lecture method is an effective way to introduce new information and concepts to a group of learners.
- The lecture method is primarily used to build upon the learner existing base of knowledge

Advantage

- It allows presentation of facts, information and concepts in a relatively short span of time.
- Provide common background for all students
- Good for large groups
- Provide difficult to find information
- Supplement other teaching methods
- Direction and purpose for demonstration
- Cheap
- It can be used with illiterate learners.
- A diverse range of materials can be used to support the content areas, e.g. slides, charts, posters and PPT

Disadvantage

- Speaker dominates all the time with his knowledge.
- It does not promotes the interaction in most of the cases (No student participation)
- The training is trainer controlled.
- No means of checking student learning
- Difficult to hold attention of all students
- Need considerable skill in speaking

2. Brain storming

Brainstorming is a group creativity technique by which efforts are made to find a conclusion for a specific problem by gathering a list of ideas spontaneously contributed by its members. This is a method to draw out the idea and solution from participants on current problems. The participants are encouraged to make a list of all the ideas that come to their mind regarding some problem in a short (given) period of time. Then the selected persons discuss about the idea given by different participants and try to get the best idea for the solution of problems. Whatever may be the idea given by participants, they are not criticized.

Purpose

- The first is that creative brainstorming improves critical thinking and problems solving skills as an individual and team.
- It also encourage collaboration on more than just major projects.
- Creative brainstorming works to include different perspective and improve the team's ability to think outside the box

Types

Individual brainstorming

Brainstorming can be carried out in groups or alone. Research is divided on which produces the highest quality of ideas. Individual brainstorming is generally most effective in simple problems solving.

Group brainstorming

Group brainstorming have obvious advantages over individual brainstorming. Individuals can be inspired by the ideas of the others. In group brain storming number of ideas tends to be greater.

Steps

- Prepare the group
- Present the problem
- Guide the discussion
- Taking action (Draw and conclusion and recommendation)

Condition of use

- Generating new ideas
- Gathering opinions, comments, questions or facts
- Theming contribution need
- Associative thinking
- Prioritization of the best ideas among the group of the people.

Advantages:

- Provides varieties of useful ideas in a short time for quick group decision.
- Enable individuals to think and response quickly.
- Decision made by group thinking is better than by individual thinking.
- Enable individuals to think quickly.
- Each participant has an opportunity to explain their ideas
- Create ownership in conclusion

Disadvantages:

- Ideas pulled out may not always be relevant and helpful to make group decision. It may happen especially with the new learners.
- It might take some longer time and may not be appropriate for packed program.
- In a group participants have to listen to others and may spend time repeating their ideas until they get sufficient attention.
- Brainstorming is generally used to improve creative ideas, but sometime be the reasons that a creative ideas does not take off from the starting point.
- Sometime time consuming
- Required high level skill full facilitator

3. Role play

Role-playing consists of the acting out of real-life situations and problems. In another way role play is a simulation in which each participant is given a role to play. Trainees are given with some information related to description of the role, concerns, objectives, responsibilities, emotions, etc. Then, a general description of the situation, and the problem that each one of them faces, is given. Once the participants read their role descriptions, they act out their roles by interacting with one another.

One of the most common training method in use and It provides the opportunity to learn by watching the small story through role play.

Purpose of role play

It is widely agreed that learning takes place when activities are engaging and memorable. Jeremy Harmer advocates the use of role-play for the following reasons:

- Quieter trainee get the chance to express themselves in a more forthright way
- Help trainees to understand that there are casual relationships between prople's behavior and the outcomes of events (Drake & Corbin, 1993). This understanding is enhanced because the consequences of behaviors can be immediately observed and self-image.
- Enables trainees to explore their values and appreciate the consequences of their values based actions (Downing, 1994)
- Enables trainees to identify options and solutions and to manage conflict.

Steps

Trainees who are actors in the role play are provided with a general description of the situation, a description of their roles (e.g. their objectives, emotions, and concerns) and the problem they face. General steps for role playing follows:

1. Preparation
    a. Define the problem
    b. Create a readiness for the role(s)
    c. Establish the situation (content, dialogue and environment set up etc)
    d. Cast the characters
    e. Brief and warm up
    f. Consider the training
2. Playing
    g. Acting
    h. Stopping as per necessary
    i. Involving the audience
    j. Analyzing the discussion
    k. Evaluating

Types

Based on preparation
a. Structured role play Provides trainees with a great deal of detail about the situation that has brought the characters together. It also provides in detail each character's attitudes, needs, opinions, and so on. Structured role-plays may even provide a scripted dialog between the characters. This type of role-play is used primarily to develop and practice interpersonal skills such as communication, conflict resolution, and realization effect. **b. Spontaneous role plays** Loosely constructed scenarios in which one trainee plays herself while others play people that the trainee has interacted with in the past (or will in the future). The objective of this type of role-play is to develop insight into one's own behavior and its impact on others. How much structure is appropriate in the scenario will depend on the learning objectives. That roleplay design without any structure during the training process.
Number of trainees/participants involved
a. Single role play, One group of trainees role plays while the rest of the trainees observe. While observing, other trainees analyze the interactions and identify learning points. This provides a single focus for

trainees and allows for feedback from the trainer. This approach may cause the role players to be embarrassed at being the center of attention, leading to failure to play the roles in an appropriate manner. It also has the drawback of not permitting the role players to observe others perform the roles. Having non-trainees act out the role play may eliminate these problems, but adds some cost to the training.

b. Multiple role play,
All trainees are formed into groups. Each group acts out the scenario simultaneously. At the conclusion, each group analyzes what happened and identifies learning points. This allows greater learning as each group will have played the roles somewhat differently. Multiple role plays allow everyone to experience the role play in a short amount of time, but may reduce the quality of feedback. The trainer will not be able to observe all groups at once, and trainees are usually reluctant to provide constructive feedback to their peers. In addition, trainees may not have the experience or expertise to provide effective feedback. To overcome this problem, video tapes of the role plays can be used by the trainee and/or trainer for evaluation.

c. Role-rotation
Method begins as either a single or multiple role play. However, when the trainees have interacted for a period of time, the role play is stopped. Observers then discuss what has happened so far and what can be learned from it. After the discussion, the role play resumes with different trainees picking up the roles from some, or all, of the characters. Role rotation demonstrates the variety of ways the issues in the role play may be handled. A drawback is that the progress of the role play is frequently interrupted for changing the character role.

Condition of Use

- It is also used to practice certain skills.
- A small group executes role play about a situation, where other learners observe the role play. A discussion is organized to develop the learning framework after execution of roleplay.
- It stimulates discussion on complex issues. A brief enactment by trainer or learners or both can be used to stimulate further group discussion on similar issues and experiences that learner shares.
- It is used to show different people feel/realization about a problem and what they should do about it.
- It is based on the assumption that many values in a situation cannot be expressed in words
- Could be use among illiterate people also

Advantage

- It is energizing
- It helps to illiterate to express or discover their feelings.
- It may focus on the problem, which are very real in nature.
- It presents complex issues in simple way.
- It does not require much resources and equipment.
- Gives learners opportunity to express their ideas based on real life situation and can learn from each other.
- It is not so expensive and can easily be conducted at different situations.
- Enables the learners to see things through seeing whaich may long-term retention. (Stimulate learning by seeing)
- Increase active participation.
- It enhances communication, interpersonal skills and fostering team working
- It develops confidence, competence and self-efficacy.
- Provides teacher immediate feedback about the learner's understanding and ability to apply concepts.

Disadvantage

- There is a possibility of being only an entertainment act rather it promotes the learning.
- Participants can get too involved in their roles and later looses objectivity during analysis.
- Participant may overact and it may loss the learning objective.
- It may be time consuming due to different behavior of participants
- Sometime adult do not want to perform any role due to their introvert nature.
- Not everybody can successfully act like somebody else due to shyness, lack of experience, lack of confidence and expression skills.
- Less effective in large groups (Chaos).
- Can lack focus unless well planned and monitored.
- Can be unpredictable in terms of outcomes.
- It may costly if need of develop playing set, dress and many more

4. Game and simulation

4.1 Simulation

When learners need to become aware of something that they have not been very conscious of, when the situation involves complex interacting dynamics, it can only be understood through immediate hands on experience. Simulation is a method based on here and now and experience shared by all learners. It is done by assigning very definite roles to each participants and having then act out a situation according the role given to them. Simulation training is a training method that seeks to train learners through replicating real life situations. Simulation is used for different situations in a number of different professions. The first known simulator was a flight simulator.

Purpose

- Simulation is a more accurate tool to reflect dynamic systems, as it is an attempt to emulate the reality.
- It allows users to understand the interrelation between design and performance parameters, to identify potential problem areas, implement and test appropriate design modifications.
- By enabling the assessment of different scenarios, it is a powerful tool for appraising options, and as a result the final design is more energy conscious with better comfort levels.

Steps

Pre-simulation:

- Decide upon the objectives and design.
- Select the appropriate simulation.
- Plan the debriefing in detail manner and have conceptual framework ready.
- Assign the role carefully and prepare role briefs and a list of rules/instruction.
- Define the situation and events in which the characters will interact. There may be more that one situation/event.
- Decide upon where to have the simulation and it should parallel to real situation.

Conducting Simulation:

- Assess roles, give each person the appropriate role brief.
- Have some appropriate means of identifying the different roles like name tags.
- Brief the participant about the situation and let them start acting according to the interpretation of roles.
- Stop the simulation, when appropriate and essential part over, or if it is getting out of hand.

After Simulation:

- Give the participants to get out of their role.
- Ask the participants to share their feelings, keep your question directed and not vague.
- Try to draw parallels with real life while analyzing the pattern of data.
- Collate these feelings and give necessary inputs and re simulation if possible

Types

There are various types of simulation practiced in literature. But more common simulation used in specially in health are mainly four types

a. Task trainers
b. Computer based simulations (Virtual simulation)
c. Manikin based simulators
d. Standardized patients (Live simulation)

Task trainers allow trainees to practice their skills on a basic simulator before working with a patient/people. Some examples of task trainers include:

- Virtual IV trainers
- Chest tube insertion trainers
- Phlebotomy (blood collection) simulators
- Blood pressure cuff simulators
- Arterial puncture arms
- Needle decompression trainers
- Ultrasound simulator

Computer based simulations (virtual Simulation) help simplify abstract concepts with digital and visual simulations of real patient presentations. These simulations are usually presented in self-directed learning modules that allow students to complete real cases and scenarios known as virtual patients.

Manikin based simulators are also known as patient simulators (human and animal). Simulation technology provides health care professionals with the opportunity to practice procedures and diagnostic methods on models (Dummy etc) in realistic clinical scenarios. This gives clinicians hands-on experience and an added benefit of eliminating the risk to an actual patient. This simulation has access to a number of manikins with varying levels of realism. Some of the more high tech manikins can act almost like a real person features include:

- Breathing complication management
- Pulse and blood pressure
- Lung sounds
- Pupil response
- Medication recognition
- Airway Complication
- Cardiac Complication
- CPR skill building
- Normal Vaginal and Instrumented Delivery
- Breech and Placental Deliveries
- C-Section Deliveries

Standardized or Simulated Patients are actors who can recreate the history, personality and physical findings of an actual patient in a realistic and consistent manner. They are also trained to provide constructive feedback from the patient's perspective. Standardized or Simulated Patients enhance realism and let students directly interact with a person that presents like a real patient. Standardized patients allow students to practice their:

- Clinical skills

- Interview skills
- History-taking skills
- Physical examination techniques
- Management of ethical and moral dilemmas
- Crisis management skills
- Conflict resolution skills
- Communication skills
- Emergency management skill simulation during disaster

Condition of use

- Simulation can be effective when an elaborate demonstration is the best method of training a moderate to large size group.
- It is suitable to gain better understanding about the activities having dangerous implications without taking real life risk such as in health care.
- If there is need of learners to learn in a "safe" environment, which permits learners to make mistakes during training. For example it is far better for a trainee to make mistakes on a dummy or in a simulator than in a real life situation, which is the case in most hospital situations.
- Trainers can also use simulator training as a means to reinforce objectives learnt in other settings.
- Trainers need to determine how the simulation will be controlled.
- Necessary to relate to real-life situations.
- It is appropriate for clinical management case, disaster, rescue or other crisis management training exercises.

Advantage

- Allows for and exploration of very real life situation, social process and behavior in a relatively in non threatening way.
- Simulation allows trainees to purposely undertake high risk activities or procedural tasks within a safe environment without dangerous implications.
- Simulation can improve trainees' skills and allow them to learn from error.
- Learners are able to gain a greater understanding about the consequences of their actions and the need to reduce any errors.
- Feedback can be given to learners immediately and allow them to understand exactly what went wrong and how they can improve.
- Simulation offers trainee participation. Rather than sitting through a training lecture, trainees can practice what they have learnt and quickly learn from any mistakes without serious implications.
- Increase hands on and thinking skills, including knowledge in action, procedures, decision-making, and effective communication.

Disadvantages

- It is a difficult method and requires an experienced and skilled trainer to conduct it.
- Simulation is not always able to completely recreate real life situations.
- Simulators can be very expensive and require constant updates and maintenance.
- Not every situation can be included.
- The results and feedback are only as effective as the actual training provided.
- Trained facilitator is necessary
- No real consequences for mistakes may result in trainee under performing and not being fully engaged in the training, thus producing inaccurate results (Gray, 2002).

4.2 Game

Trainer has to combine a number of instruments to pull the participants to the training program and sustain the motivation till the end of the program. Participants too look forward to an innovative and interactive session rather than a monotonous lecture. Games are one such instrument that develop motivate the trainees, increase real effect and develop team working. A good method of training people to meet learning objectives across the whole spectrum is to use a board game. Games are good training tools which can be used at all levels of learning objectives using Bloom's Taxonomy.

Purpose

- Using games in a training event improves the learning process by creating an environment where people's creativity and intelligence are engaged and addressing the different ways in which different people best learn; through movement, hearing, and seeing.
- Games are best used in conjunction with other learning methodologies, such as presentations and discussions.
- Games used during a training programme can help people discover the learning themselves, which strengthens recall and commitment, practice using new knowledge or skills, or reinforce initial learning.
- Games used near the end of a program can test knowledge gained and people's ability to apply it in their work environment.
- Support to teach people how to think, access information, react, understand, and create value for themselves and their organizations.

Steps

1. Prior to starting the game trainees are given information describing a situation and the rules for playing the game.
2. They are then asked to play the game, usually being asked to make decisions about what to do given certain information.
3. The trainees are then provided with feedback about the results of their decisions, and asked to make another decision.
4. This process continues until some predefined state of the organization exists or a specified number of trials have been completed.

In using them, the trainer must be careful to ensure that the learning points are the focus, rather than the competition.

- A game is a structured form of play, usually undertaken for enjoyment and sometimes used as an educational tool.
- Games are distinct
    - From work, which is usually carried out for refreshment, and
    - From art, which is more often an expression of ideological elements.
- "A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome." (Katie Salen and Eric Zimmerman)

Condition of use

- In necessary to encourage interaction between the trainer and participants and also among participants.
- When the participants make ease and comfort.
- Introduce games to illustrate behavioral or complex concepts (which can be converted into game).
- Games can be used to demonstrate existing behavioral tendencies (in relation to communication, team dynamics, leadership etc.) and to inculcate or develop new skills (analytical thinking, negotiation etc.).
- Games can come handy when the session or the program is for a longer duration.

- The attention levels drop down over a stretch of time. Introducing games in between would bring movement and activity and thus reset their energy and enthusiasm levels.
- Games can be used to implement newly learned concepts. This would help the participants in retaining the subject for a long time and practically understand the process and apply them in the work place

Advantage

- Starting the session with a simple game as an icebreaker would place the participants at ease and comfort
- Games create team players and improve social skills too.
- Games are known to enhance creativity
- Games teach players problem solving, motivation, and cognitive skills
- Encourages interaction between the trainer and participants and also among participants.
- Engages the learners as well as creates an environment of experiential learning.
- Resets the energy and enthusiasm levels
- Makes the session lively and interactive promoting a good adult learning environment
- Encourages thinking level as well as the ability to apply principles

Disadvantage

- Not good for large groups if we do not have enough materials for everyone to use
- Difficult to schedule for large number of trainees
- Audience engagement must be ensured for its effectiveness
- Spending long hours
- Sometime no any relevancy to training activities rather than recreation
- Preparedness is mandatory

Examples

- Icebreakers:
    - Card game
    - Adjective game
    - Pop the question
- Team games:
    - Pass the customer
    - Count the squares
    - Wool game
- Leadership Games:
    - Blindfold
- Communication Games:
    - Catching the chicken
- Creativity Games:
    - Make the longest line
    - Four triangles
- Change Management Games:
    - Keep the ball up!
    - Group Juggling
- Goal Setting Games:
    - Ring the peg
    - Lift the stick

5. Demonstration

It is an aid, where the learners are provided with an opportunity to observe themselves about the processes and objects. It is good tool to strengthen the learning process. It can be demonstrated through the real life or through make model. This is good supplement in conveying the complex information in simple way.

Demonstration is carried out step by step before the audience assuring that the audience understands how to perform it. Involve both theoretical teaching and of practical work, which makes them lively. Learning through demonstration by seeing, searing and doing ie it involve at least three sensory organ in learning process and help to converge all three domain of learning.

Purpose

The main purpose of demonstrations is helping people learn new skills.

Steps

- ***Introduction:*** Explain the ideas and skills, Provide prior relevant information
- ***Do the demonstrations:*** Do one-step at a time, slowly. Make sure everyone can see what you are doing i.e. Make sure the demonstration is visible, Give explanations as you go along. Maintain two-way communication with the participants.
- ***Questions:*** Encourage discussion either during or at the end of the demonstration. Ask to demonstrate back to you or to explain the steps.
- ***Summarize:*** Review the important steps and key points briefly.
- ***Evaluate*** the learning exercise

Types

1. Pure demonstration
   - Purely visual method of instruction, no any additional verbal communication in case of necessary.
2. Demonstration with commentary
   - Harmonious blend of visual and verbal modes of instruction
3. Participative Demonstration
   - All activities include above and also allows students to attempt either to replicate all or parts of demonstration.

Condition of Use

- It is a visual, practical presentation accompanied by discussion υ This method will suit a wide rage of objectives with specific procedure
- The size of the group should be small to let members get the chance to practice.
- Could be use among both literate and illiterate people
- Could use for increase skill building process at all setting

Advantages:

- Group can see, hear, touch, taste and feel that helps in resulting in more lasting impression.
- Effective to motivate to learn by showing the result of learning
- Effective to attract interest
- Effective to help understand how to apply acquired knowledge and to retain it

- Every individual get chance to do through right procedure where he/she can get support from the demonstrator that improves knowledge, attitude and skill of the individual to perform the work.

Disadvantage:

- Speed varies with participants so that it takes long time
- Sufficient materials or equipments may needed
- Needs personal care to monitor the processes
- Difficult to create an environment for demonstration
- Requires facilitator's skill
- Proper place and setup to be made
- It may not be appropriate to conduct demonstration on certain topic especially when there will be only cognitive gain.

6. Discussion\Workshop

6.1 Discussion

This is most commonly used method because it uses the learners own past experiences in a very deliberate manner. In this the learners are divided into groups of 5- 13 and given a real time or relevant subject matter or question to discuss. This discussion is carried out by the learners on the basis of their past experiences, attitudes and value, on the basis of which they arrive at new knowledge and insights.

It is important to realize that the discussion in not an end in itself and the entire cycle needs to be completed. Each small group should present its discussions to the larger group on the basis of their presentation, working principles should be evolved.

Steps in group discussion:

- Instruct the group clearly about the task, especially time and the form of presentation.
- Divide the large group in to small group.
- Different group may be given same or different task for better analysis and more clarity in the issue.
  Let the group discuss (through sharing and analysis)
- Specific time duration may be given to each group
- Sharing and presentation of group finding/conclusion/write up and discussion point of their group.
- Feedback if necessary

Types

Based on number of participants

- Small group discussion
- Mass group discussion

Based on planning/time

- Spontaneous discussion
- Planned discussion.

Condition of Uses

- This method can be used for sharing of experiences and information in lively manner.
- It could be used for any training prorammes.
- It is used in participatory training programmes.

Advantage

- It always keeps the learners in control in respect of pace, contents and focus of subject matters.
- It provides opportunities for learners to express themselves.
- It allows the learner to validate their knowledge and skills.
- It allows the learners to clarify, reflect and recognize their experience.
- It promotes the sense of belongingness in a group.
- It empowers the trainees to analyze better for effective learning.

Disadvantage

- It is time consuming
- It requires facilitation, if facilitation is poor, process of learning may be deviated.
- Member can dominate or process could be hijacked by few members.
- Member might not be serious and it can affect the result of group discussion
- Requires more space than lecture method.
- In a mixed gender, women's views may be ignored.
- Trainer needs special skills to facilitate, debrief and summarize the discussion.

6.2 Workshop

Workshops are teaching and learning arrangements, usually in small groups, that are structured to produce active participation in learning. Traditionally, workshops provide participants with the opportunity to practice skills and receive feedback.

It consists of a series of meeting with emphasis on individual work within a group with the help of consultants and resource personnel. The total workshop may be divided into small groups and each group chooses a chairman and recorder. In workshop, the individuals work, solve a part of problem through their personal effort with the help of consultants which will contribute to the group work for solving problems.

Learning in workshop takes place in a friendly, happy and democratic atmosphere under expert guidance. This is more technical and working among the homogenate participants and drawn a specific conclusion.

Steps in group discussion:

- Identify the workshop area, discussion theme
- Identify the resource for specific task and presentation
- Making the group clearly about the task, especially time and the form of presentation.
- Divide the large group in to small group
  Let the group discuss (through sharing and analysis)
- Sharing and presentation of group finding/conclusion/write up and discussion point of their group.
- Feedback if necessary

Condition of use:

- This method can be used for specific area and make common consensus including sharing of experiences.
- Workshop is fruitful when homogenous group presence in aspects of title of workshop.
- It is used in participatory function.

Advantages:

- Helps to provide up-to-date knowledge and skills as well as to develop appropriate attitude.
- Provide varied learning experiences like listening, speaking, discussion etc.
- Enhances participant's power of thinking and critical learning.

Disadvantages:

- Take long time to organize the workshop. It might take weeks or even months.
- Needs more money, materials and physical facilities.
- Sometimes it may be difficult to get appropriate consultant

7. Debates and seminar

7.1 Debates

Students who participate in debates have an opportunity to explore, listen, and enjoy learning. Debates give students additional opportunities to hear their classmates' views and to express opinions regarding topics that matter to them. They also help students make important decisions and become critical listeners. The informal debate helps students to work together to understand common problems.

- Debate is oppositional. Two sides oppose each other and attempt to prove each other wrong.
- In debate, one listens to the other side in order to find flaws and to counter its arguments.
- Debate simplifies positions and issues.
- Debate defends assumptions as truth
- Debate causes critique of the other position.

Steps

- Identify the title of debate
- Develop two groups (one forgroup and one oppose)
- Provide time of debate for each participants of both group
- Analysis of dialogue through independent panel
- Drawn conclusion and feedback if necessary

Advantage of debate

- Debating reflects the learning process.
- Debate establishes extremes, allowing the viewers and participants to see the areas in between more clearly.
- Debating allows students to explore ideas and arguments in a non-threatening environment, because presentational guidelines are provided.
- Debating is an effective method of acquiring knowledge, as arguments need to be supported by relevant, accurate, and complete information.
- Students who debate informally learn to recognize the elements of a good argument and to develop further their abilities to speak confidently.
- Debate encourages polarization of an issue

Disadvantage of debate

- Debate is rigid in nature

- Debate stresses the skill of analysis.
- Some difficult which one is good and could not draw exact conclusion
- May be time lengthy
- May develop oppose group and difficult to work in team approach

7.1 Seminar

Seminars are small group teaching and learning arrangements that use group interaction as a means of engaging participants. Although seminars usually begin with a presentation or mini-lecture to provide the basis for discussion, the word "seminar" also includes rather formal group discussions led by the teacher and focused on the content rather than on issues arising from students (Jaques, 1991). It is mid or mix form of workshop and conference.

Seminars are among the most popular training devices in higher education. When properly designed, they are a time and cost efficient method of producing active involvement of learners compared to individual training activities. Preparing a seminar involves understanding a wide variety of issues and concerns. Each seminar has a unique audience with unique skills and objectives, and perhaps a different number of participants. It is usually held in a different place with a different infrastructure. All types of seminars are never identical, even if they cover the same topic.

Steps/Process

1. Preparation

Early preparation of budget, seminar title and theme, selection of presenter, target group, venue, stationary and other resource, panel and follow is necessary.

2. Implementation

Welcome, opening of seminar, develop panel, presentation, followed question, and answering and draw conclusion as per need.

3. Evaluation

Final conduct evaluation on management of seminar, perception, learning and impact of seminar in future.

Condition of use:

- This method can be used for specific area and make common consensus including sharing of experiences.
- It could be implement for homo or hetero group base on seminar topic
- If we have capacity to arrange larger than workshop but could not do conference at that time seminar is applicable
- It is used in participatory function.

Advantages:

- Helps to provide up-to-date knowledge and skills as well as to develop appropriate attitude.
- Provide varied learning experiences like listening, speaking, discussion etc.
- Enhances participant's power of thinking and critical learning.

Disadvantages:

- Take long time to organize the workshop. It might take weeks or even months.
- Needs more money, materials and physical facilities.
- Sometimes it may be difficult to get appropriate presenter
- Difficult to draw the conclusion

Difference between seminar and workshop

Area	Seminar	Workshop
Format:	Seminar has a composition that is more like an address or learning style in classroom/hall. In this admiration, the lecturer, speaker or educator gives a discourse or contribute to information with the gathering of people.	Workshop is that workshops additionally include technical exercises rather than presentation only
Audience:	Seminars have a tendency to have much bigger gatherings of people on the grounds (may homogenous and heterogeneous).	Workshops then again have a tendency to have littler gatherings of people, or are split up into littler gatherings, that are a piece of learning in the workshop experience. (mostly homogenous)
Management:	Planning of seminar comparatively taken long time and expense concentrated than that of a workshop.	Planning of seminar comparatively taken short time and but difficult to manage, for example, dealing with the breakout bunches for the hands-on exercises after the address or speaker part of the workshop.
Activities:	A seminar configuration might just have the primary presentation and simple question and answering and there is no further catch up exercises	In the workshops, there are many activities, exercises, courses which participant can pick.
Communication:	Seminars have a tendency to have a one- way road of communication	While in workshops, communication run both routes in the middle of educators and participants.
Time duration:	Seminars are not all that long. They regularly extend from an hour and a half up to three hours for one theme. But not exact (An hour to 3 days)	Workshop also are not all that long. They regularly extend from an hour and a half up to three hours for one theme. But not exact (An hour to maximum10-15 days)
Questions:	In seminars, question answers session come in the last of presentation.	However, questioning can be done whenever it requires as in this we don't have to stop until end of presentation.

8. Case studies

These experiences are reflected upon and analyzed by the learners to extract or arrive upon new principles. The learners own experiences, values, feelings forms the basis for analyzing other's experiences. Case Studies (are stories) may be presented in written, verbal or pictorial forms or even through the medium of film or songs, depending upon appropriateness.

Case studies are most often used to simulate strategic decision-making situations, rather than the day to day decisions that occur in the inbasket. The trainee is first presented with a history of the situation in which a real or imaginary finds itself. The key elements and problems, as perceived by the key stakeholder, may also be provided.

Case studies range from a few pages in length to more than a hundred. Trainees are asked to respond to a set of questions or objectives. Responses are typically, though not always, in written form. Longer cases require extensive analysis and assessment of the information for its relevance to the decisions being made. Once individuals have arrived at their solutions, they discuss the diagnoses and solutions that have been generated in small groups, large groups, or both. In large groups a trainer should facilitate and direct the discussion. The trainer must guide the trainees in examining the possible alternatives and consequences without actually stating what they are.

The trainer should convey that there is no single right or wrong solution to the case, but many possible solutions depending on the assumptions and interpretations made by the trainees. The value of the case approach is the trainees' application of known concepts and principles and the discovery of new ones.

Steps in organizing the case study method

- Present the case study
- Divide the group in smaller groups
- Give them the task or question that what has to be find from the case
- Allow all the individual to reflect
- Let them discuss
- Debrief and consolidate

Uses

- The Can be used to convey complex theoretical concepts in simple way.
- Allow the group to reflect on its appropriateness in their life
- Allow discussions/sharing on potential threatening situations in appropriate way.
- Sharpen learners analytical and diagnostic skills
- Exposes learner to situations they might not originally experience in their own life.
- Exposes learner to similar experiences elsewhere to enable them feel a sense of solidarity and validation.
- Help in creating new knowledge through a collective reflection, analysis and synthesis.

Advantage

- It is simple to use and understand.
- Low cost and culturally appropriate.
- More learning and sharing in less time duration.
- It helps in collective learning

Disadvantage

- May be difficult to find an appropriate case study.
- The Case Study may be too general to focus on specific issues.
- Case Study written by someone else may bring his own perspective, feeling and ideology, which may lead to hampering of the learning objective.
- Hypothetically or prepared items may be too realistic.
- It may not reach to general consensus due to the different opinion of participants.
- It may invite the conflict due to local dynamics in case study.

Selecting Training Media According to Need Of The Trainees.

Media are the teaching aids through which knowledge, information and ideas are communicated. Training has specific goals of improving one's capability, capacity, productivity and performance.

These goals can be achieved only when the training is in accordance with the need of the trainees. For this, different types of medias can be used, such as, Audio, Visual and Audio-visual.

Common Classification

1. Auditory aids: Audio materials are those which can be heard; radio, tape recorder, walkman, headphones.
2. Visual aids: these are helpful to visualize the things; graphic aids, 3d-aids, display boards, and print material.
3. Audio- visual aids: these aids can be heard and seen simultaneously; projected aids, Television.

Furthermore

- Traditional aids: puppets shows, folk songs, drama.
- Miscellaneous: drama, booklets, newspaper, magazines.
- Aids through activity: schools, journey, specimens and models collections.

Audio Media

An audio aid is a device which can be heard but the person and objects whose voice are recorded can not be seen. In this type, learning occurs by hearing. In the purely auditory aids , sound recording, and reproduction and transmission and reception equipment, some which include radio receivers, and recording equipment like a disc, tape and cassette players.

The examples of audio aids are radio, tape recorder or cassette player, song, stories etc. Radio is most widely used in mass teaching where cassette player is used in individual and group teaching. Audio aids are considered less effective for providing health education.

- *Radio:* Radio is the audio aid through which message is relayed to a heterogeneous and large group of people. It is a mass media which provide one sided communication. From radio health message can be relayed in the form of lecture, story, song, news, dram, or dialogue etc
- *Songs and story telling*
- *Speaking only*

Merits of audio

- Simple to use
- Repeatable
- Provides verbal message to non-readers
- Economical
- Resistant to damage

Demerits of audio media

- Abstract representation of what symbolizes
- Has effect in only one sensory function, i.e., hearing
- Retention of information is comparatively less
- Does not monitor attention
- Qualities of the recorded voice (variation, pitch, accent, etc.) may be hard to understand or monotonous for some students.

Criteria for audio

- Training to people have visual defects
- Storytelling purposes

- Could be use among mass people and heterogeneous
- Training to illiterate

Visual Media

Visual aids are the media through which people learn by seeing. Poster, Flash cards, Flip chart, Hand puppet, hands bill, Pamphlets, Slides, film strip, hording boards, banners, model, bulletin board, flannel graph, diagram etc are the example of visual aids. Visual aids are more effective than audio as we know that learning by seeing is better than learning by hearing.

Importance

- To communicate ideas.
- To motivate the learner.
- Avoid dullness.
- Control noise pollution**.**

Merits:

- It is interesting and attractive.
- Useful and effective even for illiterate people.
- It can be easy to carry from one place to another place
- People can see from the distance even in a busy streets.
- Can be kept safe for the future use.
- Strengthen the clarity of the speaker's message

Demerits:

- There may be problem of drawing appropriate picture.
- Time consuming.
- Communicates limited information, one way communication.
- Colored picture are expensive to print.
- Visual perception of different people may vary
- Visual aids may not be self-explanatory
- Inappropriate use of colours or the quality of visual may cause distraction
- Has effect in only one sensory function, i.e., seeing
- Might not be always useful for illiterates

Feature:

- Massage should be short and point.
- The important parts should be focus by use of effects such as bright colour

Condition to use:

- In a group of deaf people.
- Small place, to minimize large space.
- Effective training to people having hearing defects
- Better impact on the trainees within short time
- When pictorial explanation can be used as a support to spoken word
- Show something which cannot be seen in real life situation (eg. fetus in womb)

Audio-Visual Aids

Audio- visual aids are those sensory objects or images, which initiate or stimulate and reinforce learning (by-Burton). These are planned educational materials that

- Appeal to the senses of the people and
- Quickens learning, facilitates for clear understanding.

Trainee learn best by observing, hearing. It is therefore evident that learning is more effective when sensory experiences are stimulated. So that audio visual methods stimulate the all sensory which may long live memory among the learners.

- Audio-visual (AV) means possessing both a sound and a visual component.
- In this type of media, learning occurs both by seeing and hearing.
- Examples : Television, video tape, movie film, etc.

Importance of Audio Visual (AV)

- Learning via AV creates a stimulating and interactive environment which is more conducive to learning;
- We live in an audio-visual age, having the skills to use AV equipment is integral to future employment prospects.
- Features of AV Aids
    - Relevancy
    - Accuracy
    - Interest
    - Comprehensibility
    - Motivation
    - Realism
    - Minimize verbalism

Condition of use

- Heterogeneous group
- Effective both type of people having hearing or seeing defects
- Large number of people
- Training of illiterates
- Large number of trainees
- Higher impact in a short time
- Transmit information to large number of people

Advantages

- Helps to make teaching process more effectiveness and conceptual.
- Helps to grab the attention of learners.
- Builds interest and motivates student.
- Enhances the energy level of teaching.
- Provides students realistic approach and experience.
- Gets the attention of the participants
- Easy to follow
- Participants feel more engaged
- Easier to explain or put things in perspective
- Easier to remember (Retention of what is learnt)
- Can transmit information to large number of people

Disadvantages

- Teaching problems
- Comparatively more expensive
- Might require trained and skilled manpower to handle equipments
- Difficult to prepare in terms of time, money and other technicalities
- Not useful for rural areas or places where there is no electricity and other necessary facilities
- Difficult for transporting to different locations

Implementation Of Training Program

Once the designing of the training programme is completed, the next step is to put it into the action. The foremost decision that needs to be made is where the training will be conducted either in-house or outside the organization.

Once it is decided, the time for the training is set along with the trainer who will be conducting the training session. Also, the trainees are monitored continuously throughout the training programme to see if it's effective and is able to retain the employee's interest.

Things to be done:

1. Before the training
2. Just before the training
3. During the training
4. After training

1. Before the Training

You can facilitate a glitch-free learning and transfer process by adopting these measures even before the training program starts.

- **Carry out training needs analysis.**

A comprehensive training needs analysis exercise with the trainees will help you assess what skills and knowledge they need to excel in their job responsibilities and the gaps in their existing knowledge and skill sets.

- **Identify the purpose/objectives of training.**

Identify the training goals and learning objectives before you start designing the course. Identifying the training goals right at the outset also sets audience expectations; they know what the training will be on and what learning outcomes they can expect.

- **Develop and ensure training module/agenda/framework/essential resource**

For effective implement, consider the following tips:

- Identify different content/module (Development or update of module as necessary)
- Develop agenda/schedule for well planning and implementation of training
- Identify the different groups of people based on their existing skills and career paths.
- Choose the right delivery method for your target audience.
- Identify the venue
- Listing and identify the necessary resource
    - Human resource (Expert/trainer, lead trainer, training coordinator, support staffs etc)
    - Logistic resource (Printed/photocopy of training module/participants handbook, stationary, projector, newsprint, name tag etc
    - Financial resource (Estimated budget-DSA/TA, refreshment, resource person fee etc)

- **Define and call to participants/learners.**

- Invite the essential participants keeping in mind about the participants Post/nature of work, education, experiences, geography area coverage)
- To motivate trainee must ensure that they meet at least some of them before the training and tell them about the necessary material needed
- Should realize the significance of the learning and understand how they can facilitate the learning process and which methods is more appropriately for training process

2. Just before the training

The following activities should ensure the just before the training for effective and participatory of training.

Logistics related

- Ensure printing/copying of necessary number of module/handouts and others, schedule
- Ensure availability of whiteboard, projector and screen
- Attendance sheet
- Ensure Pre and post training evaluation sheet
- Ensure necessary stationary (pen, marker, loose sheet, news print, instrimunts etc)

Logistics related

- Ensure budget release and receive

Resource person and participants

- Follow up and Again confirmation of participants available
- Follow up and Again confirmation of resource person available, their session and time table

Venue and environment related

- The physical environment of classrooms has direct impact on the effectiveness of learning. It is important to make the environment comfortable enough so that participants would not be disturbed and can concentrate on the session.
- Ensure effective classroom setup (U-shaped/theater shaped, Classroom type, cluster approach etc.)
- Ensure venue and setting arrangement
- Refreshment
- Lodge

3. During the Training

Training management team ensure that communicates meaning efficiently and creates a memorable learning experience.

- **Opening and provide information at the beginning.**

- Opening as informal and formal as per need
- Flow the training and learning objectives including identifying expectations, clarify goals, and remove ambiguity.
- Introduction with participants
- General information about refreshment, lodging, transportation and DSA including the administration process
- Regular icebreaking tools applied

- **Manage content to prioritize and eliminate**

- Prioritizing content ensure that your course is clutter-free and relevant.
- Use Adult learning approach
- Make sure that you review the learning objectives while chunking content.
- Use essential training techniques
- Manage next session earlier
- Follow available resource person on timely
- Summarize the learning at the end of each session

- **Draw upon the learner's prior knowledge to create associations.**

- We learn best by associations. It is easy to comprehend, remember, and retain new concepts when we can connect the dots and discover underlying patterns.
- Try to help your learners draw upon their prior knowledge or experience to understand, discover similarities, and make sense of a new concept.
- Provide handout after the completion of session
- Give more examples of real life situation
- Use dummy/instruments

- **Use instructional strategies that establish relevance.**

- Already trainee should know about instructional methods that used in training process
- Use adult friendly instructional techniques that motivate to apply newly-acquired knowledge in his work place.
- Develop alternative and immediate strategy change as per patient reaction
  - Incorporate realistic scenarios that simulate the problems faced by the learners at the workplace.
  - Incorporate practical exercises that are similar to what learners will be expected to perform at the workplace.

- **Keep an eye on the learning objectives and gesture**

- Continue reviewing the learning objectives. This ensures your content is relevant, and there is no information that does not directly relate to the overarching goals of the course. Playing related games to make attention and relaxation
- Keep eye contact with trainee
- Regular discussion establish so that promote of participatory learning

- **Provide action plans to retain and improve motivation.**

Help learners prepare action plans to guide them when they are back to work. These action plans lay out the guidelines that will assist learners to apply what they have learned during the training.

  - Create action plans to guide learners just after the training and six months afterward.
  - Make sure that the plans are realistic.

Beside this

- Accommodation of the trainer and trainees should be kept separately so that trainer can have some free time for his/her preparation of sessions.
- Room is clean and has enough stock of stationery and other required material for the training. Posters could be put up in the training room for creating learning environment.
- It may be necessary to plan time and space and boundaries i.e people joining the training session according to the plan at a time
- Arrangements about foods, water, snacks could be done for the training
- Manage time appropriately in the time schedule of training.

4. After the Training

The learning process continues long after the training is over. The period just after the event holds many opportunities that trainee could transfer the training skills to practical in workplace.

- **Completion and finalization of training**
  - Organize the final training closing ceremony program with certification, final review
  - Conduct post training evaluation (trainee and training management evaluation)
  - And framing how to use learned knowledge and skills in workplace

- **Supplement the training with "social learning."**
  - Share training outcome and successes participants, trainer and colleges.
  - Social learning connects learners to one another and the trainers so that they can discuss and share stories.
  - This social aspect of the learning process increases motivation and facilitates a smooth transfer of the knowledge.

- **Provide refresher courses.**
  - Develop plan for refresher course. A refresher course can improve recall. You can pair these refresher programs with problem-solving sessions where trainees can help each other by recounting the challenges they have faced while trying to implement the learning and sharing of their learned knowledge and skills.

- **Arrange post-training follow-up sessions.**
  - Reflection is one of the most efficient ways to cement the knowledge, identify gaps in training, and identify the barrier(s) to a strong transfer of learning.
  - You can send follow-up emails to trainees after about a month to reinforce to use the knowledge and skill in their work place
  - Arrange post-training follow-up sessions to provide supplementary lessons or use these opportunities

Evaluation Of Training Program

Concept of training program evaluation

It is most important element in designing and conducting the training programme. It measures the effectiveness level of training in the area of content of training, methodology, duration of training programme and logistics support etc. It is all important components in any training programme. Therefore, it needs to be evaluated either in the mid of training (if training session are of longer duration) or at end of the training programme.

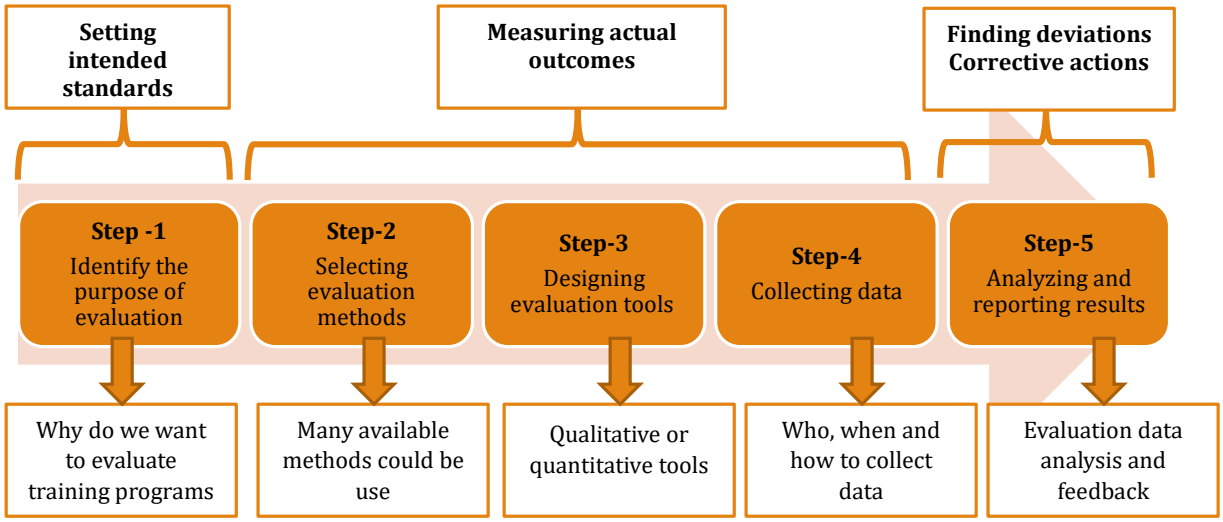
Evaluation in training programme means the systematic eliciting and analysis of feedback information about the relevance and impact of the training in order to assess whether learning or change has been brought about. It is not aimed at being judgmental, it brings out strength and weaknesses. It helps to reflect on and consolidate present learning for participants. It also helps to reflect on the consolidate present learning for participants. It also helps the trainer modify and revise the programme and strengthen the future programme.

Objectives

- To monitor the quality of training
- Provide feedback
- To appraise the overall effectiveness of the investment in training
- To assist the development of new methods of training
- To aid the individual evaluate his or her own learning experience

Process of Training Evaluation

1. Setting intended standards
2. Measuring actual outcomes
3. Finding deviations
4. Corrective actions



1. Setting intended standards

First setting why the training evaluation is need and what are the indicator want to evaluation of training. In evaluation of training, we assess changes in the learners and overall effectiveness of the programme, including the trainer. The evaluation is not only within the programme but also after the programme is over.

Following are the important areas for evaluation that necessary to setting the intended standard.

Among the learners

- Attitudinal Changes: Has the training brought about any changes in the attitudes and value of the learner.
- Behavioural Changes: Have the learners shown any behavioural changes during the training programme.
- Conceptual Development: Has knowledge about the relevant topic increased. Has that been useful during transaction at their work place?
- Performance change: Has the training contributed to any improved performance.

For the training management

Develop training managem,ent quality indicator like time management, refreshment, objective meet, using of instruction media etc

- Training objectives: Are the objectives realizes, simple and relevant. Have they been achieved? If so, to what extent.
- Contents and training methods: Is the contents covered adequate and meaningful. Are the training methods appropriate?
- Group Work: Are the group functioning effectively? Is the group process contributing to learning?
- Trainers: Are the trainers keeping pace with the learners?
- Learning material: Are they organized? Are the learners finding then relevant?
- Physical equipment and logistics support: Is the training facility comfortable? Are the living arrangements all right? Are the food arrangements satisfactory? Does the physical environment facilities learning.

Among the trainer

- Suitability of trainers
- Delivery sills of trainer etc

2. Measuring actual outcomes

Collection of data

In this section necessary data collection through the using of different data collection techniques (Observation, questionnaire, discussion etc)

Primary Sources: There are three primary sources of gathering the information for evaluation of training programme. These are

- The learner himself or herself (first and major sources)
- Colleague (People around the learner at work place and elsewhere)
- Trainer (Has seen the learner closely)

Secondary sources:

- Diary (maintained by learner and others during training)
- Records (of training and other related activity)
- Report of organization (Performance of organization)

The analysis of collected data

- Data collected in should be entered into a computer or in essential media
- Analysis should be simple and limited to necessary data using: Frequency distributions and average statistics.

3. Finding deviations

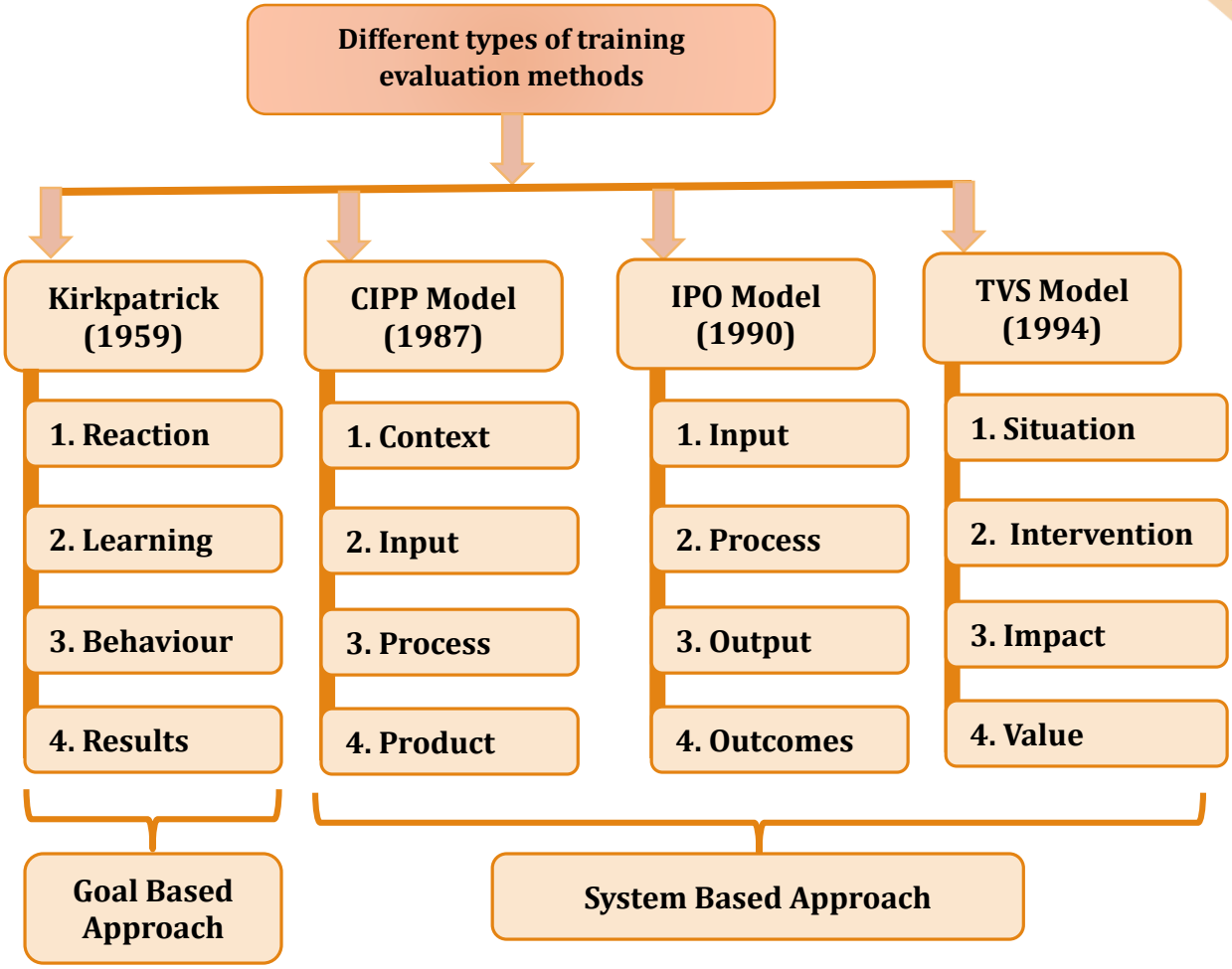
- Identify the deviation on training objectives and exact outcome of training process. For this process after the analysys data should compare the indicator set before the training conducted. This provide clear picture to what extent the training deviated

4. Corrective actions

- Based on the training deviation the reform action plan should de develop for future course of action to make necessary correction.

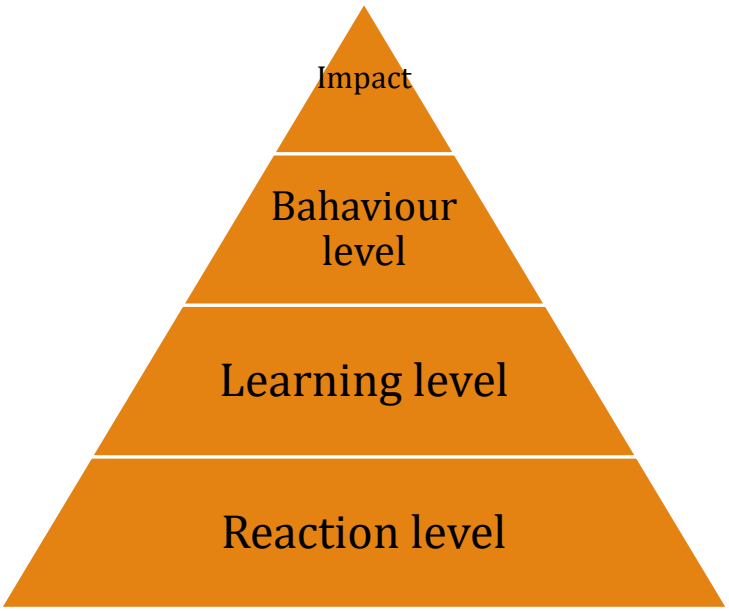
Criteria for evaluating training effectiveness

There is different types of evaluation methods applied in various place. Among them the Kirkpatrick model is famous for raining evaluation.



According to Kirkpatrick model there of following four level of training evaluation

1. **Reaction criteria**
2. **Learning criteria**
3. **Behaviour criteria**
4. **Impact/Outcomes criteria**



- Level-1 and 2 can be evaluated right after the training course in classroom,
- While Level-3 and 4 can be evaluated in participants' work places over a period of time. Thus these levels can be interpreted as steps in chronological order.

Level-1: Reaction

The first step to be done in the evaluation is to check participants' reaction. This can be conducted during or right after the training programme/session. It is to evaluate participants' impressions, feelings, satisfaction levels, etc. Interview and questionnaire can be used as a tool. Beside this trainee reaction on that the training was a valuable experience, and you want them to feel good about the instructor, the topic, the material, its presentation, and the venue.

It's **important** to measure reaction, because it helps you understand how well the training was received by your audience. It also helps you improve the training for future trainees, including identifying important areas or topics that are missing from the training.

Start by identifying to measure reaction. Consider addressing these questions:

- Did the trainees feel that the training was worth their time?
- Did they think that it was successful?
- What were the biggest strengths of the training, and the biggest weaknesses?
- Did they like the venue and presentation style?
- Did the training session accommodate their personal learning styles

Level-2: Learning

Second step is to evaluate what extent has participants learned in terms of KSA. This can be identified by comparing before and after the training. Test, questionnaire can be used as a tool. The major evaluation question is How much has their knowledge increased as a result of the training?

When planned the training session, trainer hopefully started with a list of specific learning objectives: these should be the starting point for your measurement. Keep in mind that you can measure learning in different ways depending on these objectives, and depending on whether trainer's interested in changes to knowledge, skills, or attitude.

It's **important** to measure this, because knowing what your trainees are learning and what they aren't will help to improve future training.

- To measure learning, start by identifying what you want to evaluate. (These things could be changes in knowledge, skills, or attitudes.)
- It's often helpful to measure these areas both before and after training. So, before training commences, test your trainees to determine their knowledge, skill levels, and attitudes.
- Once training is finished, test your trainees a second time to measure what they have learned, or measure learning with interviews or verbal assessments.

Level-3: Behaviour

The third step is to evaluate what extent has participants' behaviour changed. This can be evaluated at their workplaces. It is to evaluate how much training gave impact on participants' performances in real situations. Self-check, interview, questionnaire, observation can be used as a tool.

At this level, trainer evaluate how far trainees have changed their behavior, based on the training they received. Specifically, this looks at how trainees apply the information.

It's **important** to realize that behavior can only change if conditions are favorable. For instance, imagine you've skipped measurement at the first two Kirkpatrick levels and, when looking at trainee behavior, supervisor/trainer determine that no behavior change has taken place. Therefore, assume that trainees haven't learned anything and that the training was ineffective.

However, just because behavior hasn't changed, it doesn't mean that trainees haven't learned anything. Perhaps their supervisior won't let them apply new knowledge. Or, maybe they've learned everything you taught, but they have no desire to apply the knowledge themselves.

It can be challenging to measure behavior effectively. This is a longer-term activity that should take place weeks or months after the initial training. Consider these questions:

- Did the trainees put any of their learning to use?
- Are trainees able to teach their new knowledge, skills, or attitudes to other people?
- Are trainees aware that they've changed their behavior?

One of the best ways to measure behavior is to conduct observations and interviews over time

Level-4: Result

The last step is to evaluate what extent has training given impact on workplace as a final output. It should make clear profit to the workplace such as increase of service receiver, productivity/ effectiveness, efficiency and so forth including intangible benefit. It should be evaluated sometime after the training. Data analysis, interview, questionnaire can be used as a tool.

Of all the levels, measuring the final results of the training is likely to be the most costly and time consuming. The biggest challenges are identifying which outcomes, benefits, or final results are most closely linked to the training, and coming up with an effective way to measure these outcomes over the long term.

Here are some outcomes to consider, depending on the objectives of your training:

- Increased employee retention.
- Increased effectiveness and efficiency.
- Higher morale.
- Reduced morbidity
- Increased service receiver
- Higher quality ratings.
- Increased patient satisfaction.
- Fewer staff complaints.

Method of evaluating training effectiveness:

a. Observation method

- Observation techniques are useful methods for collecting data. Data about individual performance, group interactions and organizational culture can be collected by observation. Trainers observe and record the note, which is needed.
- Tools: Observation checklist, Performance checklist and proformance rating scale

b. Test related method

- *Oral sharing:* This is a method where participants evaluate the training in pairs, threes or groups. They may have a set of parameters or a questionnaire given to them. Each pair or small group can have reporters or they can present one another's reactions. In large group trainer may take notes.
- *Questionnaire:* A questionnaire is a series of written question on a given topic. These questions are either open ended or close ended. Cross checking is possible, by the use of multiple questions on the same topic in different forms. They can be easily analyzed at one time as well as at several point of time.

- *Interview:* Since interview is face to face method of collecting information, specific and concrete. Data can be generated through this process. This technique can also be used in the field setting to cross validate the information obtained through other sources.

c. Pre-post performance method

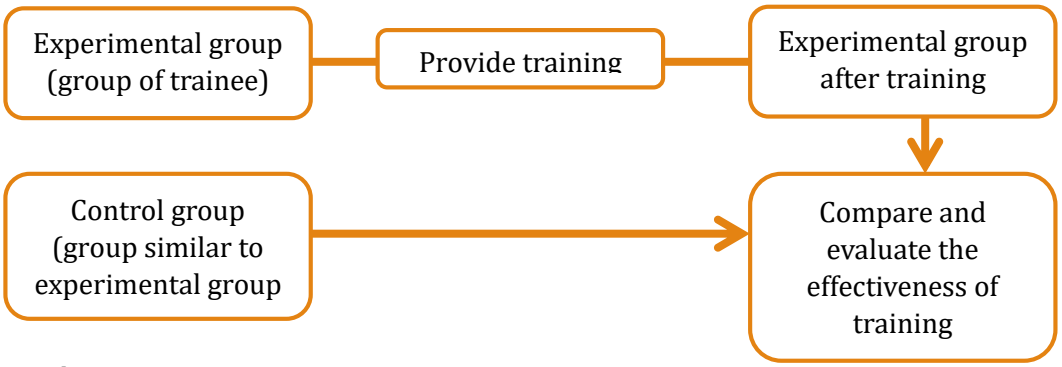
- This is a simple way to evaluate learning by comparing the levels of participants before and after the training. This method is provides the opportunity to gather quantitative data so that it can clearly show the results.
- To check the level of knowledge, you can give the same test before and after the training and compare the results.
- It's often helpful to measure these areas both before and after training. So, before training commences, test your trainees to determine their knowledge, skill levels, and attitudes.
- Once training is finished, test your trainees a second time to measure what they have learned, or measure learning with interviews or verbal assessments.

Tools of test related methods

- MCQ
- True and false
- Matching question
- Short and long question
- Demonstration methods etc

d. Experimental control group method

This is methods where one separate group is develop as control and another group will provide training and evaluate change in performance in coming days. The diagrammatic process of experimental control group methods as follows



e. Trainee surveys

This is methodology of evaluation of training effectiveness at behavioral and outcome level. This type of methods could implement periodically. It is quite costly than other methods. The questionnaire methods generally applied in this methods.

Training survey methods could use qualitative approach or quantitative approach oth mix of both approach as per necessary.

Questionnaire

Method	Advantages	Disadvantages
Class discussion	– Effective to obtain general idea. – Two way communication – Can validate the answers.	– Some participants do not contribute. – Difficult to sort personal opinions and general opinions. – Facilitation affects discussion
Focus group interview	– Effective to obtain ideas on specific areas. – Can validate the answers.	– Difficult to sort personal opinions and group opinions. – Facilitation affects discussion
Individual interview	– Effective to obtain detail information. – Can validate the answers.	– Some people hesitate to provide honest feedback. – Interviewer affects discussion – Take time
Questionnaire	– Less time for conduction – Effective to obtain information equally from all the participants. – Effective to obtain quantitative data.	– Difficult to develop – Difficult to obtain detail information. – Difficult to interpret and validate the answers gathered.

Training report writing

Reports are often written at the end of a training program to inform concerned officials or organization about the training activity that has occurred. Many organizations have their own requirements for such reports. A good training report should include both the facts and the qualitative information.

The process of writing a report takes primary into account, who is audience or reader and to what extent audience will able to use the information from the reports in their own work. It decides the style, design, contents, presentation and language of the report.

Types of Report

a. Data base Report:

- Essentially the report presents an overview of the entire event. What the objectives are, what the contents covered, what the methods were used for the training, how many learner from which organization attended, information about the trainer and follow up plan made etc.
- Written in a brief form is useful for donor, government officials, interested readers and administrative purposes. It is also useful for participant.

b. **Process based Report:**

- The report is in a narrative form and elaborate the principles on which the training has been based, the sequence of contents held on each particular day, the issue arising out of each session, the detail processes, trainer's response and change made in training design, it may be documented.
- The report is mainly useful for learners for reflection and learning process and also for trainer who do similar training in the field.

c. Analytical Report:

- Essentially this report highlights the why and how of training, it is evaluative in nature and pools together analyzed data to make links, focus on issues and trends and

highlights what worked well, what did not work and what could be the possible reason for that.
- It is useful for trainer to find out what they learnt, action- researchers in the field of training as well as for other trainers to learn about innovative thinking and experiment and use it in their own work.

The contents of a training report in general include:
Contents/layout of a Training Report

- **Summary/Executive summary:** A wrap up of the entire training report. (1½ pages)
- **Introduction:** The background information for the training
- **Purpose of the training program:** Why was the training was held?
- **Training goal and objectives:** What was the intended output of the training, and how it was to be achieved?
- **Participants:** How many participants were expected and how many attended? Also mention the participants' names, organizations, and locations.
- **Program content and methodology:** A description of daily activities
- **Schedule/ Timetable:** A reference to amount of time spent on which activities/ topics (could be included as block schedule and / or time schedules in detail in the appendix/ annex)
- **Products:** A description of products, if applicable. The products are reports, documents, materials, etc produced by the participants during the training.
- **Participants' evaluation:** A summary of the evaluation of the training program from the point of view of participants.
- **Facilitators' evaluation:** Findings, conclusions, observations, and lessons learned
- **Financial aspect:** Specifying the cost that was spent during the different activities of the training. This may not be a trainer's responsibility if hired from outside the organization, but the organization should attach their expenditure report to the trainers' report.
- **Recommendations:** Proposed for future actions based on what emerged during training, as well as the participants' and trainers' evaluations.
- **Appendices –** Attached the needed copies of documents, including agenda, detail list of participants, attendance lists, timetable, evaluation forms, reference teaching materials, costing bills, and any other relevant documents.

Training of Trainers

Concept

ToT is that training provides to those people

- who are supposed to work as trainer or
- they are appropriate participants for ToT on the basis of selection criteria

- A form of training imparted to an individual with a view to preparing him/her for his/her future role as a trainer.
- A process which aims to develop his/her capabilities and capacities of imparting training to others as a skilled professional.
- Besides, ToT also aims to help organizations to build their own cadre of trainers.
- ToT has a dual role to play: the individual growth and the organizational growth.
- Develop necessary orientation, awareness and abilities to perform a catalytic role as facilitators of change.

Further TOT could conceptualized/defined

a. is for teaching/training personnel, either practicing:
   - as professional teachers or trainers

- as professionals in a given field who accompany trainees in their work environment (occasional teachers or trainers);

b. Covers a wide range of skills: knowledge specific to the field in question (general, technical or scientific; educational, psychological and sociological skills; management skills; familiarity with the world of work; and knowledge of training schemes and target audience
c. It also covers training related to course design, organisation and implementation as well as the content of training activities, i.e. imparting knowledge, know-how and skills.

Objectives of ToT

Specifically ToT aims at the following:

- To use training as a tool of social change.
- To help organizations/agencies in their efforts of human resource development for accelerating growth oriented participatory action at the local level.
- To promote the activity of training as an integral element of people's organization.
- To prepare the participants as trainers for field level training activities.
- To develop necessary skill in designing and organizing training program.
- To provide an understanding of the principles and practices of the training process.
- To sharpen communication skills of the trainer.
- To build up the trainer's skills regarding the organizational management aspect of the training programme.
- To provide in-depth knowledge regarding how to conduct training.
- To make the bridge between trainer and trainee for sustainable knowledge deliver.

Types of ToT

1. According to process focused

- Content focused
  - In this ToT, participants are mostly oriented in the content thoroughly
  - So that they can deliver content effectively whatever the methodology.
  - It is knowledge based ToT.

- Methodology focused
  - In this ToT, the subject matter would be the methodology,
  - so that they can select and are appropriate methodology depending on the nature and duration of training and level of participants.
  - They can use or prescribe the methodology to develop specific training course also

- Content and mythology focused
  - In this ToT, participants are made qualified regarding the content/knowledge along with the methodology
  - so that participants are capable of delivering correct knowledge by applying the appropriate methodology.

2. According to Nature

- General ToT (GTOT)
  - GTOT is trainers are those persons who are proficient in training management, providing, conducting training, conducting trainers training and designing training course in general.
  - So, GTOT trainer should possess following criteria,
    - Receiving training as training manager and proficient management
    - Receive another subject base MToT/TOT for certified as trainer to provide subject base training

- Master ToT (MTOT)
  - Master trainers are those persons who are proficient in service providing, conducting training, conducting trainers training and designing training course.
  - So, master trainer should possess following criteria,
    - Receiving training as service provider and proficient in service providing
    - Receive ToT and certified as trainer
  - Receive instructional (training course) deign training and certified as course designer. So, master trainers training is designed to generate the master trainers to the need of organization/ institution or Nation.

Difference between GToT and MToT

GToT	MToT
– In-depth knowledge on subject matter is not delivered. – Aims to provide general procedure of how to provide training. – Could be provided to heterogeneous group. – Provided in relation to career development.	– In-depth knowledge on subject matter is delivered. – Aims to provide general procedure long with specified procedure. – Could be provided to homogenous group (i.e. on the basis of education/ experience) – Provided in relation to job description.

Need of organizing the ToT

- To keep the pool of trainers
- To provide trainers required in different places at different times
  - If trainers are transferred or retired
  - If new training is required or designed.
- To produce new master trainer.

Importance of ToT

- Makes training more effective and efficient.
- Develop skills of the trainer.
- Development of pool of trainer.
- Making the knowledge suitable training deliver.
- To make homogeneity standardization/ quality training delivery process.

Selection criteria or trainee for ToT

Major criteria	Other criteria
Person proposed for ToT should receive training as service provider and should be experienced in service providing	Knowledge and skill use different participatory methods
Should have knowledge on subject matter	Pre exposed to training
Should have pre determined educational and experience status	Communication skill and interpersonal relation
	Knowledge on adult learning

Overview, objective, function, types of training and activities of NHTC in training development

Overview

The National Health Policy 1991 laid emphasis on development and management of health manpower. The tenth plan has envisaged National Health Training Center to develop as an apex body under Ministry of Health for overseeing all health training not only for the Department of Health Services (DoHS) but also the Department of Drug Administration (DDA) and Department of Ayurveda (DA) in order to cater the need of the health manpower training for the personnel.

National Health Training Center (NHTC) was established in 1993 AD under Department of Health Services (DoHS), Ministry of Health (MoH) to coordinate and manage all health training under Ministry of Health (MoH). NHTC is an apex body, responsible to organize and manage training for different cadres of health service providers. In its training network, it has five regional training centers and one sub- regional training center. Thus NHTC contributes to meet the targets envisioned by National Health Policy 2071, National Health Sector Strategy implementation plan and Sustainable Development Goals. NHTC's goal, objectives and strategies are listed in Box 1.

Box 1: NHTC Goal, Objectives and Strategies

Goal:

The overall goal of NHTC is to build a technical and managerial capacity of health service providers at all levels to deliver quality health care services towards attainment of the optimum level of health status.

Objectives:

- To enhance and standardize the training curricula, references, trainer's capacity with the training sites.
- To organize training activities to address the need of quality health services providers in different level of health facilities.
- To address the training requirements reflected in current national health policy and strategies
- To ensure quality of training programs using different mechanisms in adherence to national standards.
- To adopt and promote innovative training approaches
- To strengthen mechanism and capacity for post training follow up and support

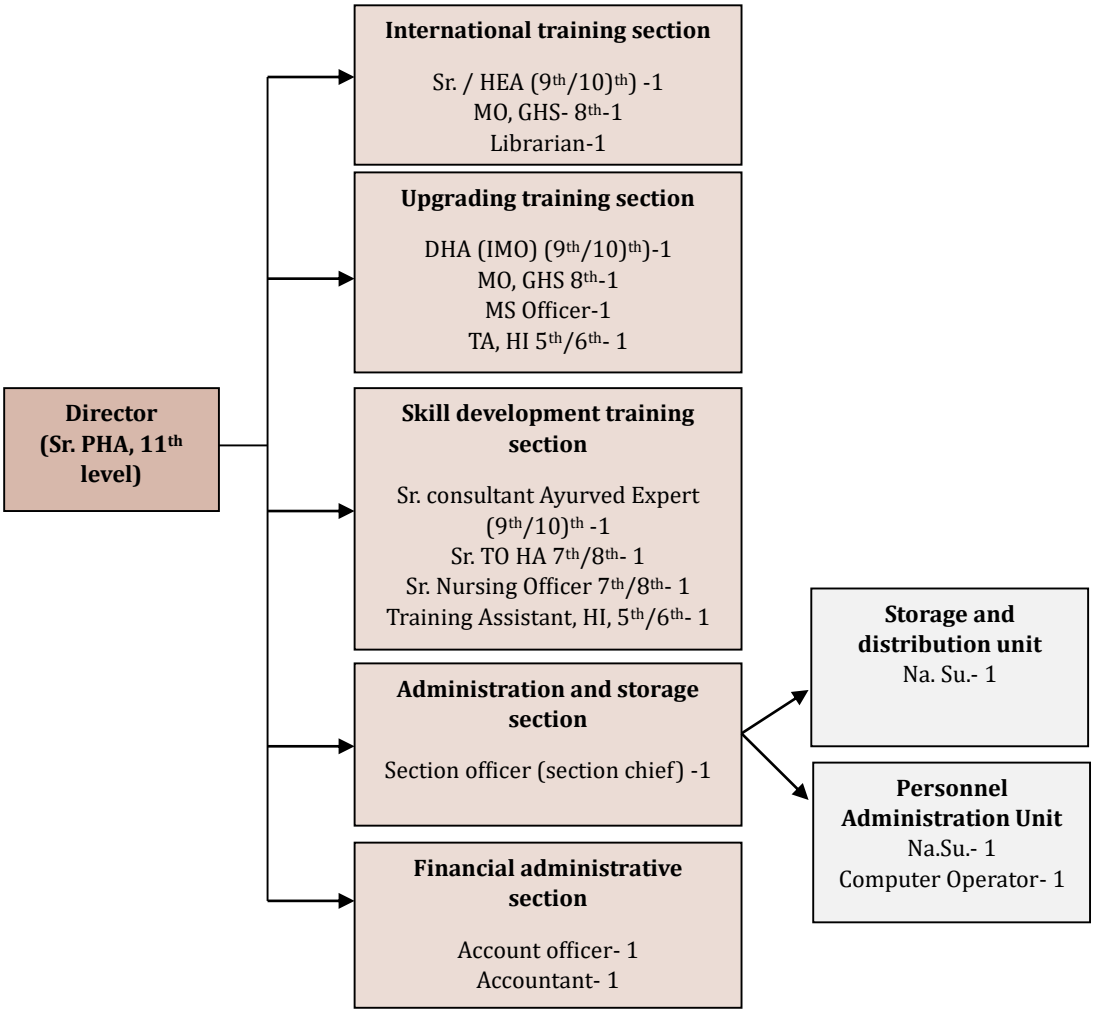
Strategies:

- Assessing, standardizing and accrediting training and training sites.
- Developing and standardizing training packages.
- The institutional capacity development of all training units.

- Conducting pre-service, in-service, orientation, refresher, long-term and short-term trainings
  as per national requirements.
- Integrating and institutionalizing training.
- Develop links with professional career development organizations.
- Strengthening the Training Information Management System (TIMS) and training rosters.

Organizational Structure of NHTC

The senior public health administrator as director 11th level position heads NHTC. The director of this training center is responsible to oversee the national health training activities and s/he is supported by the team of technical and administrative staffs.



HTC Training Sites

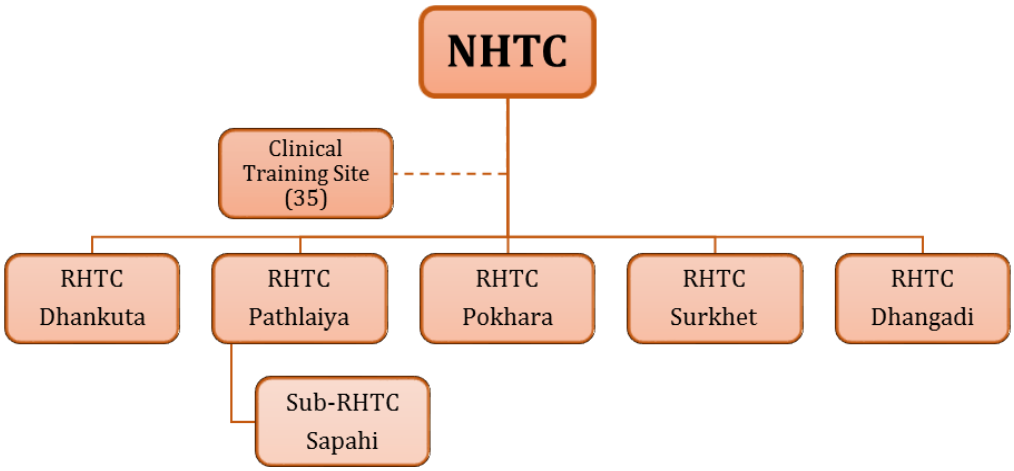
National Health Training Centre provides training from following training sites:

SN	Training	No. of sites	Name of training sites
1	SBA	21	Different accredited central, regional and zonal hospitals
2	ASBA	2	Paropakar Maternity Hospital, Kathmandu and Bharatpur Hospital, Chitwan

SN	Training	No. of sites	Name of training sites
3	Anesthetic assistant	3	NAMS Bir Hospital, Dhulikhel Hospital and AMDA hospital, Damak
4	Family planning	15	Accredited hospitals and Family Planning Association of Nepal (FPAN) clinics
5	Ultrasonogram	4	Dhulikhel Hospital, AMDA Hospital, Patan Hospital, Bheri Zonal Hospital, Nepalgunj
6	Medico-legal	2	TU Teaching Hospital and BPKIHS Dharan
7	Safe abortion services	7	Accredited central, regional and zonal hospitals & FPAN clinic
8	Pediatric nursing	2	Bheri Zonal Hospital and Palpa Mission Hospital
9	Intensive and critical care units (ICU, CCU)	2	In process of site development
10	OT management	2	TU Teaching Hospital and Bharatpur Hospital
11	Mid-level practicum	11	Various hospitals

Training Network of NHTC

National health training network includes five regional health training centres, one sub-regional health training centre, and 35 clinical training sites.



Program Components of National Health Training Centre

Table 1: Program Components of NHTC

SN	Program Components	Key Functions
1	Designing of training	Need assessment, package/curriculum development, update/review
2	Management of training	Planning, coordination, logistic, affiliation, budgeting, training data management
3	Conduction of training and orientation	Deliver training, orientation, refresher, recording and reporting of training
4	Post training support	Follow up, programatic and clinical support, study/evaluation, CME

5	Quality improvement	Accreditation of training sites, certification, institutional capacity, Monitoring and supervision of training activities
6	New initiatives	IT based training, induction, clinical mentoring, self-paced, blended learning, alternative approaches, study and evaluation

Major activities conducted by nhtc

Training Program

NHTC provides following areas of training program:

a. *Pre-service training:* NHTC provides two types of pre-service trainings; the Diploma in Biomedical Equipment Engineering (18 months) and Anaesthesia Assistant Course (1 year).
b. *Upgrading Training:* In-service upgrading trainings are designed and conducted as per the needs of program divisions and centers. The training packages aim to develop the skills to implement new programs and improve job performance. The main courses are listed in Box 2.
c. *Competency and clinical-based training courses:* The 23 courses offered are listed in box below:

Types of upgrading and competency and clinical-based training courses

Upgrading cources

- Senior auxiliary health worker training (6 months)
- Senior auxiliary nurse-midwife (6 months)
- Auxiliary nurse-midwife Padnam (P) (6 months)
- Auxiliary health worker-P (6 months)
- Auxiliary health worker(15 months)
- Auxiliary nurse-midwife (18 months)

Competency and clinical based courses

- Skilled birth attendance
- Advanced skilled birth attendance
- Rural ultrasonography (USG) for senior nurses
- Medico-legal
- Non-scalpel vasectomy
- Intrauterine Contraceptive Device (IUCD)
- Postpartum intrauterine contraceptive device (PPIUCD)
- Minilaps
- Implants
- Safe abortion services
- Comprehensive abortion care
- Medical abortion
- Mid-level practicum (MLP)
- Palliative care
- Pediatric nursing care
- Gender based training
- Clinical training skills (CTS)
- Operation theatre technique and management (OTTM)
- Infection prevention (IP)
- Mental health
- Comprehensive family planning (CoFP) counseling
- Primary trauma care (PTC) and emergency trauma management (ETM)
- Adolescent and sexual reproductive health (ASRH)

d. *Refresher training:* A range of refresher trainings are conducted as per the needs of divisions and centers to develop the skills for implementing new programmes and to improve job performance. These include refresher training courses for FCHVs and skilled birth attendants (SBAs).
e. *Orientation programmes:* NHTC supports the divisions and centers to develop orientation packages and prepare pools of trainers for conducting orientations for health and non-health workers including for Health Facility Operation and Management Committee (HFOMC) members and on Appreciative Inquiry (AI).
f. *Basic training:* Basic trainings are organized for Female Community Health Volunteers (FCHVs) who are newly recruited by the local mother's group among the member. The duration of this course is 18 days.
g. *Induction training:* NHTC has begun providing induction training for all health service groups from 2072/73. The one month courses (24 days) are provided for all health service disciplines.
h. *Other training includes:*
   - Training on the Transaction Accounting and Budgetary Control System (TABUCS)
   - Biomedical equipment assistant training (BMEAT)
   - Biomedical equipment training for users (cold chain, laboratory, X-ray)

Training Guidelines/Manual development
Number of training manuals were developed or revised this year with support from external development partners (e.g. PEN Package, OTTM).

Institutional Capacity Development
NHTC focuses on the following activities for the institutional capacity development of training:

Physical facilities:
NHTC develops the facilities at regional training centres, hospitals and district level training sites and reviews and ensures the presence of adequate physical facilities and equipment as per NHTC's standard.

Training programme development:
NHTC develops the training programmes as per the need of MoH, DoHS and other stakeholders and facilitates coordination between divisions, centres, districts and training sites. NHTC also plans, implements, and manages different trainings and supports training improvement in coordination and collaboration with external development partners, NGOs, private providers and medical colleges.

Capacity building:
NHTC develops the capacity of central and regional level staff in different training and development specialized areas. It strengthens and enhances knowledge and skill of staff by providing an opportunity to participate in different national and international workshop, seminar, training, and different programs.

Develop training databank:
NHTC is working to update the information in the TIMS. All the training information taken from different training sites is being updated and made available to participants. NHTC is updating the TIMS at the central level and link it with the regional health training centres and other clinical training sites. NHTC is also preparing a trainers' roster.

Research:
Research is needed to explore ways of improving the quality of training programmes and evidence informed programming. NHTC is conducting follow-up enhancement survey of various training activities (such as SBA, MLP, AAC, OTTM, BMET). NHTC is also planning to develop the capacity of its training sites to carry out research on training related matters.

Human Resource for Health and Development

(Part Second)

Concept:

HR planning is an essential component of personnel management. Scientifically planned and managed human resources hardly need reiteration. It governs the organization in a proper way that avoids the organization becoming a victim of over or under HR. Right number of qualified and skilled HR is the golden asset of the organization.

Resources are two types

1. **Human:** *This is the leverage point, the centre of power. Here's where we can make significant differences in our lives, our careers, and our organizations and thereby, eventually the health of our people.*

2. **Non human:**

- **Physical** We've made major investments in establishing our physical assets, we can utilize to serve our people with available tools and facilities ,
- **Financial,** Sure, we're really labour intensive, that's the nature of any health sector. Only minimum% of our national share is for health sector. This is our limitation we have to live with!
- **Information and Knowledge**, That's one of our success stories in the recent past. HMIS, LMIS, FMIS and HuRDIS has been right at the canter of this. But, we need to be as good as possible the new world of information. It's time to join the Internet. But that's another story for another time.
  Machines, materials, money and technology etc these are tools and aids.

Human resources use it to attain the organizational objectives. So, HR is the precious and valuable resources of an organization. Commitment, motivation and competency are the quality of the HR of an organization. Similarly, periodical forecasting of HR is an essential prerequisite of the personnel management.

The forecasting of the HR done in three ways: Both quality and quantity of the HR should be considered for three types of forecasting.

1. The economic forecast
2. The organization's expansion forecast
3. The employs market forecast

Definition:

1. Human Resources development is a continuous process of determining and assuring that the organization will have an adequate number of qualified professionals available at the proper times, performing jobs which meet the needs of the organization and which provides satisfaction for the individuals involved.
2. HRD is a set of inter-related activities, by which human potentialities are assessed, selectively upgraded and appropriately deployed for achievement of envisioned goals which foster human dignity.
3. A set of systematic and planned activities designed by an organization to provide its members with the necessary skills to meet current and future job demands.
4. HRD is the integrated use of training and development, career development, and organization development to improve individual effectiveness.
5. **According to DeCenzo and Robbins,** "Human resource development is concerned with preparing employees to work effectively and efficiently in the organization."

6. **According to TV Rao,** "Human resource development aims at developing a variety of competencies of employees and developing a culture in the organization to utilize these competencies and contribute to organization growth".

The mission of HRD is:

- To provide individual development in order to improve the performance related to a current job;
- Provide career development in order to improve performance related to future jobs;
- Provide organizational development (OD) related to both optimal utilization of human resources and improved performance, which together lead to the efficiency of the organization. (Gilley & England, 1989).

The goal of HRD is:

- Improve the performance of our organizations by maximizing the efficiency & performance of our workforce. We are going to develop our knowledge and skills, our actions and standards, our motivation, incentives, attitudes and work environment.

Primary HR Functions

- Human resource (re-)planning
- Staffing (recruitment and selection)
- Compensation and benefits
- Employee and labor relations
- Health, safety, and security
- Equal employment & Equity
- Human resource development (HRD)

Secondary HR Functions

- Organization and job design
- Performance management/ performance appraisal systems
- Research and information systems

The Human Resource function
is not the same as
The Personnel function
is not the same as
The Training function

HRD Functions

- Training and development (T&D)
- Organizational Development (OD)
- Career Development (CD)

- ***Training and Development (T&D)***
  Training: Improving the knowledge, skills and attitudes of employees for the short-term, particular to a specific job or task, e.g.,
  - Employee orientation
  - Skills & technical training

- Coaching and Counseling

Development: Preparing for future responsibilities, while increasing the capacity to perform at a current job.

- Management training
- Supervisor development

- ***Organizational Development (OD)***

The process of improving an organization's effectiveness and member's well-being through the application of behavioral science concepts. The diagnosis and design of systems to assist an organization with planning change. OD activities include: change management team building, learning organizations, management development, quality of work life, management by objectives, strategic planning, and participative management. organizational restructuring, job redesign, job enrichment, centralization vs. decentralization, changes in the organization's reward structure, process consultation, executive development, action research, third party interventions, and more. We will discuss these in future articles.

- *Focuses on both macro- and micro-levels.*
- *HRD plays the role of a change agent.*

- ***Career Development***

On-going process by which individuals progress through series of changes until they achieve their personal level of maximum achievement.

- Career planning
- Career management

Elements of HRD

- Right number of people
- Right place
- At the right time
- With the right skills
- With the right motivation and attitudes
- at the right cost
- doing the right work

Importance of HRD:

- To set up an organizational culture
- The aging workforce and approaching retirement wave
- Current and projected labour shortages
- Globalization
- Growing use of contingent flexible workforce
- The need of leverage human capital and enhance returns
- Evolution of technology and tools

Expected Achievement of HRD:

- Plan and allocate human resources to align with organization wide and department strategic direction
- Make decision on recruitment retention, performance management learning and development diversity succession and workforce wellness

- Demonstrate the attribute and behaviour within the statement of organizational culture and continuity engage employee in achieving and sustaining the desired culture in organization
- Participate in establishing the human resource management practices, policies, and procedure requires achieving organizational vision, principles values and commitment to employees.

Role of management in HRD:

- To plan and allocate human resources to align with government wide and department strategic direction
- Manage human resource and make decision on recruitment retention, performance management learning and development diversity succession and workforce wellness
- Provide inputs or participate in establishing HR management practice, policies and procedures

Steps of HR planning:

- To assess the current status of the organization's human resources
- To review the organization's objectives and revenue projections
- Trans late the organization's objective projections into a forecast of demand for human resources.
- To assess and forecast internal and external supply sources.
- To match the forecast of future demand and supply(shortage and overstaffed positions)

The figure shows that the pyramid of the HRD development and its component, application and relation of HRD with them

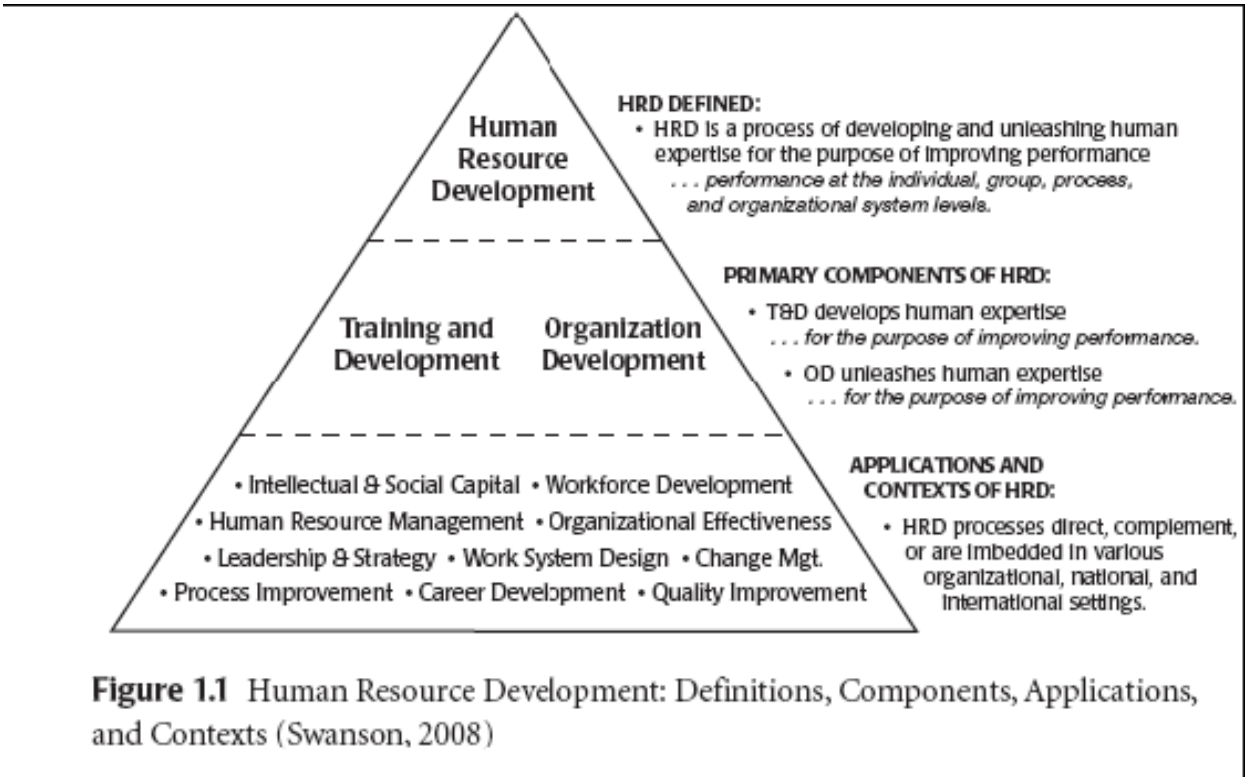


Figure 1.1 Human Resource Development: Definitions, Components, Applications, and Contexts (Swanson, 2008)

Determinants of HRH Developments:

HRD Resources:

- Budget,
- HRD staffs and staff skill

HRD Planning:

- Mission and goal setting
- HRD planning and policy Development

Personal policy and practice:

- Job classification system
- Compensation and benefit system
- Career system
- Recruitment ,hiring, Transfer and promotion
- Personal policies
- Discipline Termination
- Grievance procedures
- Other Incentives system
- Union relationships
- Labour law Compliance

HRD data:

- Employee data
- Computerization of data
- Personal files
- Health sector workforce
- Information

Performance management:

- Job descriptions
- Supervision
- Performance planning and evaluation
- Accreditation

Training

- Staff training
- Management /Leadership development
- Link to external pre service training

Human resources development (HRD) in the context of organizational Development:

Meaning of Organizational development:

Is defined as the technique for bringing change in the entire aspects of the organization, rather than focusing attention on individuals, so, that change is easily absorbed

Beckhard (1) defines Organization Development (OD) as "an effort, planned, organization-wide, and managed from the top, to increase organization effectiveness and health through planned interventions in the organization's processes, using behavioral-science knowledge." In essence, OD is a planned system of change.

- Planned. OD takes a long-range approach to improving organizational performance and efficiency. It avoids the (usual) "quick-fix".
- Organization-wide. OD focuses on the total system.
- Managed from the top. To be effective, OD must have the support of top-management. Increase organization effectiveness and health. OD is tied to the bottom-line. Its goal is to improve the organization, to make it more efficient and more competitive by aligning the organization's systems with its people.
- Planned interventions. After proper preparation, OD uses activities called interventions to make system wide, permanent changes in the organization.
- Using behavioral-science knowledge. OD is a discipline that combines research and human behavior

Why do OD

- Human resources -- They certainly can make the difference between organizational success and failure. We better know how to manage them.

- Changing nature of the work environment. Our workers today want feedback on their performance, a sense of accomplishment, feelings of value and worth, and commitment to social responsibility. They need to be more efficient, to improve their time management.
- Global markets. Our environments are changing, and our organizations must also change to survive and prosper.
- Accelerated rate of change. Taking an open-systems approach, we can easily identify the competitions on an international scale for people, capital, physical resources, and information.

Who does OD?

To be successful, OD must have the buy-in, ownership, and involvement of all stakeholders, not just of the employees throughout the organization. OD is usually facilitated by change agents, people or teams that have the responsibility for initiating and managing the change effort. These change agents may be either employees of the organization (internal consultants) or people from outside the organization (external consultants.)

Steps:

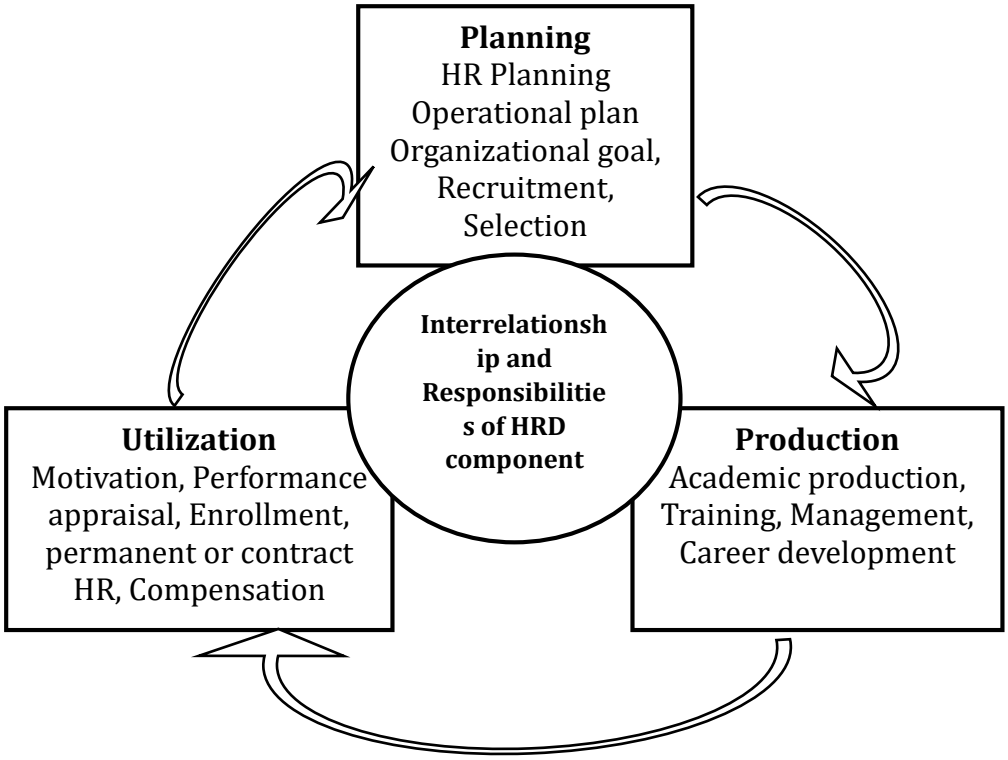
1. Diagnosis
2. Strategy planning
3. Education
4. Counseling and training
5. Evaluation

This result the following things:

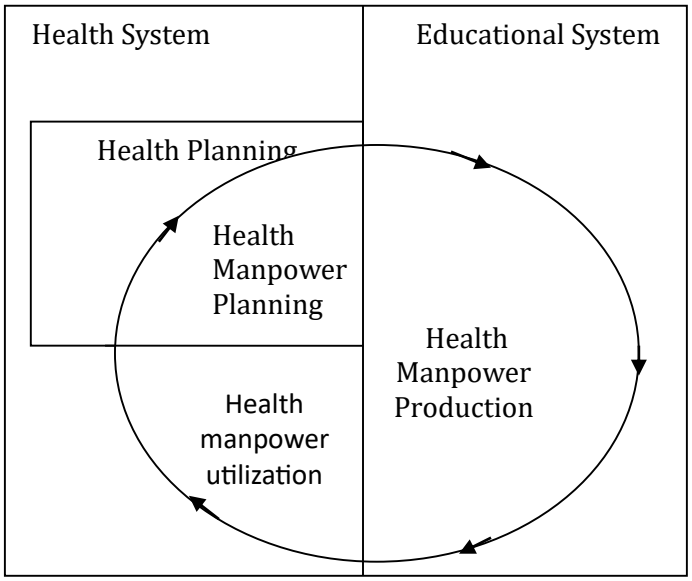
- The right no of people
- In the right place
- At the right place
- With the right skills
- With the right motivation and attitudes
- At the right cost
- Doing work

Organization development ⇄ **Human Resource Development;** these two are the core part of organization management and human resource management. They are interlinked internally. Without development of HRD and its function and component, never pick up of organization performance. Similarly, without proper management of organization it never meets the goal because of apathy and dread human resource. So, in any organization human resources and their developments play vital role in whole organization development.

- It is a methodical process of analyzing the current workforce, identifying future workforce needs establishing the gap between the present and future workforce needs, establishing the gap between present and future workforce needs and implementing actions to meet the organization's strategic direction.



Planning: planning addresses the workforce implications of strategic and operational plans, including movement of employees in, out and within the organization. Human resource planning affects the full range of human resource programmes, such as recruitment and retention, classification, compensation, succession planning, human resource policy labour relations and employee learning and development.



Production: Attainments of the desired and tangible result and out comes of an organization through group efforts. Trained and skilled HR uses the non- human resources in a systemic process with strong motivation and commitment for the

production. It might be targeted or non- targeted. Now a days qualitative health services are expected. These are measured in term of client satisfaction and improved health indicators. Periodical in service training, refresher training and monitoring are essential for the quality production in HRD.

Utilization: Health services are planned for people and non profit making in public sector. Similarly health professional are planned enrolled and utilized in a systemic manner. HR planning should be performed for short term and long term utilization. Personal administration division should plan as organizational goals and objectives for proper utilization.

The health manpower system for developing of planning, production and utilization of HRH The combine forces of planning based on the different statistical, epidemiological, political and social demand of health service that implies should supply adequate manpower in different health institution according to the job and working nature of utilization. So Planning have great value for health development but the manpower availability and production is another subsequent part of planning where as utilization depict nature of task, motivational factor of job and working environment of organization. Without the mutual cooperation, understanding, coordination the health organization cannot perform assignment effectively and efficiently to meet the national and international objective and MDG.

Pre-requisite For HRD

1. ***On the basis of statistical data:***

Total population, different categories of population, population growth rate, TFR, life expectancy are the prime things to be considered in HR planning .Health status indicators of the country are made available from regular Health Management Information System (HMIS) or periodical health and demographic survey or research report. These reports give morbidity, mortality, fertility, nutritional status, health care delivery system, health service utilization, health policy, quality of life etc indicators. Government ranks the problems and sets priority on the basis of available resources and policy of the country. Then government develops policy, plans, strategy and HR plan to tackle the problems. These indicators are compared with international standards and prepare the short and long term HRD planning.

2. **Leadership *readiness:***

Leadership of an organization is a key determinant of HRD planning. It ensures the right people are on the right job with appropriate skills and motivated to the level of high production. Leadership orientation, clear documented plan and guidelines support to leaders for HRD. Periodical policy revisit and strategy are supportive for HRD. It should be clarified about quality, quantity, distribution, utilization of different categories of human resources and functional balance of different categories.

3. **Enabling legislation:**

First of all HRD planning depends on entry level knowledge, skills and basic orientation of the workforce to technology and nature of the job. Working hours, weekly and annual leave system are also important enabling factor of HRD planning. Similarly, it depends on leave in child birth; sick leave and paid and unpaid holiday leave of the organization. Health care facility on the job and nature of the work etc are also the basic enabling pre-

requisite of HRD. The HR policy and development based on the basis of law, rules and regulation of own countries and respective organization. The motivation factor, recruit system, holidays system also based on the legal condition of country. If any obstacle create on the way of working the law of respective matter deal and able to provide equal and right justice that means legislation system reserve the right of individual as well organization also.

4. Administrative capacity:

If the plan is to be at all realistic it must take account of administrative limitation, dearth of administrative regulation, health manpower planning is likely to have only a limited effect. Personal administration division recruitment system, selection procedure, Physical and medical examination capacity, orientation training,, basic and periodical refresher training, performance appraisal system, and capacity span of control, unity of command capacity, roles/ responsibility and authority are the essential pre- requisite of the HRD planning.

5. Political dimension:

Health manpower planning involves political and depends on the kind of political system in a given country. Political commitment, Political stability, goals, mission, vision, objectives and Strategies of the organization are the pre-requisite of the HRD planning.

Similarly political dimension determines the long term and short term HRD planning, Health policies, resources allocation for health. Political dimension at central and periphery level also should be considered. The political dimension should be reconciled with social and economical policies.

6. Performance appraisal:

Performance appraisal is an assessment process by which a leader of his/ her close team members' (subordinates') level of achievement is determined. This determines the how they are doing their assigned task as targets and objectives. The objectives and target should be

- Relevant to assigned job
- Feasible
- Measurable
- Known and agreed to by the staffs whose performance is being assessed

Targets /objectives should be clearly laid down in job description.

- These should be specified during training or on the job orientation
- These should be routinely instructed

Performance appraisal helps people to discover their strengths and weakness. So that weakness can be minimized or corrected. It provides further possibilities for growth and development. It also needs training and orientation. The performance appraisal should be done on specified time interval i.e. usually confidentially once a year. It should be done by immediate supervisor.

There are many reasons for poor performance. Many are not the fault of the health workers some reasons are:

- Insufficient resources
- No clear job description/ instructions
- Lack of reward or punishment
- Team members do not work well together
- The supervisor does not give enough encouragement

- The workers is worried by personal problems

In-sufficient training is only ONE reason for poor work performance

7. In service training/education:

Training is the process in which both the mind and body are brought under exercise and discipline. Generally trainings are called as pre- service training, orientation and refresher training and in-service training.

Generally in service training are performed on the job methods. These are planned and given in following conditions:

- Implementation of new programme
- Introduction of new policy and strategy
- For position rotation
- For introduction of special projects

In addition to above mentioned condition, it is essential to continue the health professional education through out their carrier. Continuation education can be performed employees themselves or by their supervisors or managers. The approach may be different like reading magazines, books, journals, in service training, workshop etc.

Human resources for health (HRH) Planning in Nepal:

Conceptualization planning in the context of health:

Health manpower planning is the process of estimating the number of person and the kind of knowledge, skills and attitude they need of achieve predetermined health target and ultimately and health status objective. Such planning also involves specifying who is going to do what, when, where, how and with what resource for what population groups or individuals, so that the knowledge and skills necessary for adequate performance can be made available according to predetermined policies and time table.

As an intrinsic element of the health manpower development process, health manpower planning is also concerned with health manpower development, production, management and utilization of health workers. It is an essential component and an integral part of national health planning which, in turn, should take place within the framework of national planning for over all social and economic development.

The increasing limitations of public health sector resources to meet public demand are leading not only to the new forms of association between public and private health system and the public but also to an increased focus on achieving an efficient and effective, value for money provision of health care in the public sector. At the centre of this is the way human resources are planned, trained and mobilized within the services. For it is the resources, which are the major determinants of the quality, character and current cost of health care provision. These changes in perspective have increased the need to develop HR planning and management roles, which can lead to an effective and well motivated workforce. At the core of this is the need to ensure that the health services have:

- The right no of people
- In the right place
- At the right time
- With the right skills
- With the right motivation and attitudes
- At the right cost

Objectives of HRH planning

- To specify the direction of growth and development of human resources.

- To specify the outlines for long term, medium term and short term frame -work for HRH development.
- To identify the policy guidelines and operational plan and future plan.

Importance of HRH planning:

- ***Improves the competencies:***

HRH planning improves the knowledge skills, abilities, capabilities of each individual

- **Enhance effectiveness:**

It improves productive performance of employees for achieving goals effectively.

- **Foster team work:**

Group focus in work activities

- **Facilitates career development:**

Personal improvement efforts undertaken by an employee to achieve career plan.

- **Increase Job satisfaction:**

It facilitates positive emotional response of employee towards jobs.

- **Improve decision making:**

It improves decision making capabilities and creative thinking of employees.

- **Manage the Change and conflict:**

It helps overcome resistance to change by improving the climate change.

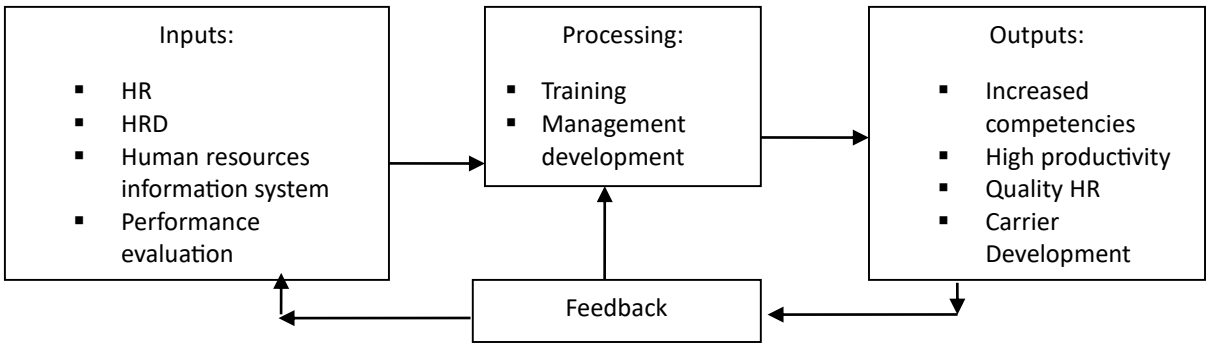
- **Succession Planning:**

To develop the employees capacity for anticipating future needs and making plans to meet the needs from the available resources.

- **Environmental adaptation:**

Organization become dynamics through the efforts and competencies of their human resources

Human Resources Development Environment:



Following things analysis is essential for HRH planning:

- Analysis of the existing HR situation
- A projection of future requirements for staffs in line with long term plan
- An analysis of training and training institution requirements
- An initial set of policy proposals to support the objectives of the plan
- Current action plans for implementation.

In addition to above mentioned things following resources should be forecasted for HRH planning:

Demand:

- Strategic plans
- Demographics
- The economy
- Technological trends
- Social trends
- Production schedule
- Budget/Time series/ Ratios
- work standards

Supply:

- Current inventory
- Productivity levels
- Turn over rate
- Absenteeism rate
- Movement among job rate

Human resources development action:

- Hiring
- Training
- Career management
- Productivity programme
- Reduction in force

Analysis of health care needs in the country:

A. Demographic trends:

Present and projected population by age and sex, population density and distribution, Migration, life expectancy present and projected birth and death rare etc are the principle factors to be considered for HR planning. For our country we can take the following demographic information.

Basic demographic and health indicators of the country are as given below: ***(***Demographic & health survey2006):

Nepal has

- A very young(< 15 years) population: 41%,
- < five years Population 13%
- Above 65+years 4%M:F Ratio89:100
- Average household Population:4.9 person
- Women headed household 23%
- Improved source of drinking water uraban:90%, rural:80%
- No toilet household -50%(Improved toilet Urban 37%, 20% rural)
- TFR-3.1
- Median age for marriage 17.2years.
- married by age 18 years -60%
- Childbearing starts by median 19.9 years
- One quarter of women have had their first child by age 18.
- Unwanted birth is unwanted-16%

- Mistimed (wanted later) 14%
- Birth intervals 33.6months
- Knowledge on Family Planning- >90%
- FP modern method using 44%
- Female sterilization 18%
- Injectable 10%
- Unmet need of FP 25%
- Need for limiting 15%
- Need for spacing 9%
- IMR-48/1000 live births
- U5MR 61/100/live births
- Immunization coverage BCG-93%, DPT389%,P391%, Measles85%,
- U5 children suffering from ARI-5%, taken for care 43%,
- U5 children suffering from Diarrhoea -12%,, bloody diarrhea 2%,27% taken to Health facility for care,
- ORS treated 41%,, 29% treated with ORS Sachet
- Diarrhoeal case (34%) do not receive any treatment,
- Under five children with fever 17%, 34 % were taken to Health facility.
- ANC services received 44% by SBA,Four ANC visits -29%,
- TT 2 received during pregnancy 63%,
- Home delivery -81%,HF delivery 18%,19% delivery assisted by SBA,19 % delivery assisted by Traditional BA,
- 50% delivery assisted by relatives,
- PNC care 31% received PNC care with in two days of birth.
- MMR 281/100000 live births(3 deaths /1000 live births)
- Under five children are stunted (Low Height for age)-50%,Wasted (Too thin for Ht)-13%,Under weight -39%,
- Anemia under five children 48%

B. Epidemiological trends:

The next factor which determines the human resource for health is:

1. Existing distribution; determinant and diseases burden/problems of the country. These are:
   - Incidence rate, prevalence rate of top ten diseases:
   - Diseases targeted for elimination e.g. Leprosy and MNT
   - Diseases targeted for eradication e.g. Poliomyelitis.
2. Possibility of pandemic e.g.: Avian influenza
3. Social problems of the country e.g. HIV/AID
4. High mortality rate e.g. MMR
5. Remerging and emerging public health problems
6. Morbidity indicator these are:
   - Dominant morbidity and mortality patterns: Aids, TB, Malaria, MCH and chronic diseases, Emerging morbidity related to the wealth of society, cancer, heart diseases, stroke, and diabetes.

C. Socio-economic trends:

- Size of the population
- Political commitment
- Health care demand of the country
- Urbanization industrialization of the country

- Natural disaster and calamities effect in the country
- Public health expenditure of the country
- Relative emphasis given to public sector Vs private sector
- .Personal Vs non-personnel expenditure of the budget
- Emphasis given preventive Vs curative services
- Emphasis given to primary vs. higher level care Ambulatory vs. in patient care

D. Development of scientific and technical capability:

Availability, accessibility, affordability and acceptability of modern scientific technology of the country play the significant role in requirement of different categories and technical competency of the HR.These factors should be taken under consideration during short term and long term health and HR planning. Planned technology implementation in health service delivery system should be integrated and co-coordinated with concerned universities of the country. Sudden introduction of new technology should

Plan short term training and orientation programme for the technology.

E. Other factors

- Policy on upgrading/ expansion of existing hospitals, establishment of new Regional and Zonal level hospitals, PHCC, HP and SHP
- On the basic of health institution and HW Ratio, Doctor and HW ration,
- Population and HW ratio
- Priority programme of the country e.g.: Maternal health, Reproductive Health

Current Health Services Facilities on Public Private Sector

Public sector:

Type of facility	No	Total beds	% of Occupancy	Remarks
Specialty Hospitals	5	275	95	
Regional/Central &Teaching hospital	10	1860	95	
Zo. hospital	10	720	70	
Dis. hospital	67*	1030	60	
Health Post	701	-	-	
Sub health Post	3159	-	-	-
PHCORC	13700	-	-	-

Private Sector

Type of facility	No	Total beds	% of Occupancy	Remarks
Specialty INGO/Missions	123	3804	50	

Source: Strategic plan for HR For health 2003MOH

Estimating the requirements of appropriate mix of various categories and level of HRH:

Methods and technique of determining the HR requirements consist of following steps:

Assessing the current human resources:

Current human resources on the basis of human resources inventory. The easiest method to finding the current situation is organizational HRIS. Similarly it can be finding from currently being done job analysis. It gives the qualification of the human resources also.

Forecasting the human resource demand:
Forecasting of the human resources should be done in terms of quality and quantity with time demarcation. External environmental factors like economic, technological, political, legal, social, cultural forces etc determines the HR demand. Similarly, organizational objectives like expansion of organization, introduction of new technology, restructuring the organization, introduction of new programme, efficiency, work load, nature of the job (permanent or temporary), turnover situation of the existing human resources is another issue for HR demand. Then analysis of HR should be done in qualitative and quantitative approach.

Forecasting the human supply: *Estimation of* availability of required HR in term of quantities and qualities from inside and outside of the organization. Regarding the internal sources, detail inventory analysis and human resources audit should be performed. External sources are educational /training center and labour market should be studied.

1. **Matching the demand and supply forecasts:** Demand and supply forecast of HR are matched to determine future human requirement i.e. surplus and shortage. Organizational policy, strategy, programme, determines the future requirements.
2. **Preparation of HR action plans:** Action plan should be prepared to deal with the shortage and surplus of human resources. They specify the time bound specific activities for implementation purposes. They are:

- Recruitment plan: Recruitment and selection of new employees- Their number, type and timing
- Development plan: No, skills area, methods, duration, for training and Development
- Retention plan: Career development, compensation levels and incentives
- Redeployment plan: Transfer and retraining of employees
- Promotion plan: Ratio and basis of promotion
- Succession plan: Internal supply relating to future managerial placements

In general following things should be taken into consideration in e*stimating the requirement of appropriate mix of various categories and level of HRH:*

A. Market orientation is considered in following things:

- Human resources production in the market
- Qualitative aspects of the training/education
- Human resource productivity and its use
- Financial resources available and its use
- Intra, inter and extra sectoral relationships

Government and private universities/training institutes are the prime source of human resources production of the country. In addition to above institutes few people also comes from out sides the country. Categories, number and quality of the HR production depends on policy, strategy and short term and long term HR planning of the government Similarly its requirement of quantity, quality category, etc depends on total population , population

growth rate, fertility rate, morbidity rate mortality rate and priority health programme, budget allocated for health care of the country.

B. Service target/ panel expert:

Estimation of requirement of different categories of human resources depends on the government prioritized targeted programmes. The next one issue is the number of technical expert required for the different categories services and programmes. The experts' need of the nation is found by surveying the health problem of the country. Similarly it can be predicted by analyzing the health services data of the health institution. Existing expert meeting for development of policy and strategy for HR planning is the practical approach for estimation of required HR. Human resources information analysis for prediction of retiring time of existing HR is another method of finding the HR requirement of the country.

Similarly work measurement can be done for HR estimation as given below:

- Planned out put for a year=40,000 units
- Standard man hours per unit=5hrs
- Planned hour for the year (a*b) =2, 00,000 hrs
- Productive hours per man per year=2000hrs
- No of direct work required (c/d)=100 workers
- Allowance for absenteeism and workers turnover=25
- No of workers to be employed (E+F) =125 workers.

C. Economic demand method:

The supply and demand of human resource are intimately linked with supply and demand for health care and indeed all other related goods and services. This is also based on like time, personnel, and raw materials. Levels of hospitals, types of health care services, income level of the services consumers are the primary things that determine the demand of HR. Similarly consumer act of the country, level of education and economic standard, availability of the technology and equipment in the health care facility also determines demand like economic theory in other sector.

Produce Personnel in number exceeding the current supply:

A. Normative method:

Different categories of human resources for health are produced by universities and training institutes as per their objective and target. It also depends on the demand in the market i.e. possibility and job opportunity in the market. Similarly the categories and quality also depend on people taste, income and incentive to them. The supply of HR depends on population size, growth rate, fertility rate, existing health problems, organizational structure, health care delivery system, use of technology in health services, health consciousness level of people etc. Government policy regarding the privatization of university and training institute are also the factors for exceeding the current supply of HRH.

B. **Quantitative approach (Top down) approach):**

This approach is management driven. It is a traditional or hard approach to HRH planning. It only thinks for routinely running the department of the organization. This approach considers usually: HRIS, trend analysis, mathematical calculation of HRH requirement and economical trend for health sector. Thus it aims only supply and demand of HR. It is similar to x theory of motivation.

C. **Qualitative approach (Bottom up approach):**

This approach is employee driven. It focuses on individual employee concerns such as promotion, performance appraisal career development, work flexibility creativity, etc. It is also known as soft approach decentralized Harpist is similar to the Y theory of motivation. This approach concerns on: Matching the organizational needs with employee needs, employee development, training, creativity, compensation, incentive scheme, employee safety and welfare, work flexibility, promotion, career planning and development, protection of special focus group egg. Women and disadvantage groups.

D. **Statistical method:**

Human Resources for Health information system (HRHIS), Production rate of human resources for health from universities and training centers.

Basic things considered in statistical methods are

1. Demographic data: Present and projected population by age and sex
   Population density and distribution
   Migration
   Life expectancy
   Present and projected birth and death rate
2. Economic information: pattern and tendencies regarding national, health sector, and personal income and expenditures

- Cost of providing health services and of maintaining the different manpower categories.
- Cost effect estimates of selected health programme
- Employment rates and distribution according to the major occupational grouping

Health Insurance benefits:

1. Health status and needs: Mortality and morbidity data according to major causes, age, sex and geographical distribution
2. Use of health care services by the population.(Health services used –Met demand) according to number, type, quality and effect
3. Health human resource supply: category, number, status, sex, age, year of graduation, geographical location,, specialty and qualification
4. The health service system and HR utilization: No, size, characteristics, distribution, of health facilities, staffing patterns, job vacancies
5. Training of the human resources:
   - Quantity and quality of applicant for training
   - Enrolment by year of study
   - Institutional objectives and orientation
   - Duration of the study
   - Number and qualification of teaching personnel
   - Actual and potential capacity of training institutions
   - Student attrition and repetition and their major causes
   - Training cost
   - Content and organization of the curricula
   - Foreign degree and out comers

Role of National HRH policy:

The purpose of Human Resource Planning:

The increasing limitations of public health sector resources to meet public demand are leading not only to new forms of association between public and private health systems and the public but also to an increased focus on achieving an efficient and effective, value-for-money provision of health care in the public sector. At the centre of this is the way human resources (HR) are planned, trained and mobilized within the service. For it is the human resources, which are the major determinants of the quality, character and recurrent cost of health care provision. These changes in perspective have increased the need to develop HR planning and management roles, which can lead to an effective and well-motivated workforce. The core of HRH planning is the needed to ensure that the health service has:

- The right number of people, in the right place, it the right time, with the right skills, with the right motivation and attitudes, at the right cost, doing the right work.

Purpose of this national plan:

The purpose of this strategic plan, covering a period of fourteen years to the year 2017, is to take a long distance view of how health and health care needs will change and from that how the health service and the staff that provide that service will need to change. For the period of the long-term health plan that recognize that there will be an increasing need for a viable private health sector working together with the public sector.

HRH plan is intended:

This HR plan makes proposal for future staff requirements and supply and their allocation on the best available information on the future intentions of the Ministry through its emerging national health plan.

1. To specify the direction of growth and development of human resources.
2. To specify outline HR objectives for the medium term this provides a framework for short-term plan development.
3. To identify short-term actions and, in particular, policy actions which are needed for the Ministry of Health (MOH) to proceed towards the medium term future.

National health Policy 1991: Technically competent human resources will be developed for health facilities. Training center sand academic institution will be strengthened.

Focus of Second long term health plan (1997 -2017): Policies on HR planning and development

1. The highest priority will be given to decentralization HRH planning within the broad national guidelines of the HRH master plan.
2. The scope of the HRH master plan will be gradually broadened to include INGO, NGO and private sector. The master plan will maximize input from lower levels, increase sensitivity to local need sand effectively link HRH planning to the overall health planning framework.
3. The type and number needed for health services delivery through the ministry of health will be based on 1996 HRH master plan
4. Periodic assessment of the need to supply of health personnel will be under taken with the coordination and collaboration of various sectoral and intersectoral committees, individual ministries, organization and professional bodies involved in planning, production, and use of HRH.
5. production of clinical, technical land supportive health personnel for all system of the medicine will be based on their projected need , rather than the capacity of the training institution

6. Norms and standard and criteria to assure quality education and training of health professional will be developed for all system of medicine.
7. Standards, criteria, and the requisite compliance mechanism governing establishment and operation of public, private medical school and institution fro the training of health personnel will be developed for the system of medicine. At a minimum the standard and criteria will be addressed issues of :
    - health sector priorities and needs
    - region/ geographic balance
    - gender equity in enrollment
    - reservation for individuals from remote areas who meet entrance requirement
    - feasibility
    - sustainability
    - financial and human resource implication and their effect in existing medical school and training institutes
    - Their effect on existing medical schools and training institutions
8. To ensure regional /geographical balance for candidates from remote areas and secure gender equity in enrollment, subsidized will be provided to cover pr-eservice education costs for training of basic and midlevel health personnel
9. MOH will terminate its involvement in pre-service training , refocusing its efforts in in-service training refresher course and continuation education
10. In-service training block that gives adequate scope for career advancement will be established especially for basic level health workers

Policies on HR management

1. There will be strict adherence to the rules and regulations regarding recruitment, selection, placement, transfer and deputation of staffs.
2. clear and explicit job description based on standard and guidelines and by type of institution will be developed and implemented for all levels of technical an support staffs within the MOH
3. A transparent performance based and result oriented incentive system will be developed and implemented.
4. A system for integrated supportive supervision of technical and support personnel at all level will be developed and implemented.
5. The responsibility necessary authority and resources for HR management related task will be devolved below to Sub health post level.
6. Private practice of paramedical staffs will be legalized for the provision of certain services.
7. Effective co-ordination between the MOH and other ministries responsible for personnel will be encouraged actively.

Organization and Management Of human Resource:

- The ministry of health and population provides a wide coverage in its primary and secondary health care services. However there is a general problem under staffing in all those institution, particularly in rural areas, with 40% of sanctioned and filled posts without the incumbent in place. This has been along standing problem, especially for the more highly trained cadres
- The different in pay between senior staffs and unskilled workers are small
- Employment practices have not yet been brought line with new social and political philosophies

- Information on vacancies and on the movement of the staffs in the service is either not available or is not currently assembled in a form which will enable planners and decision makers in the ministry to make consistent decisions in the allocation of new staffs.
- So as it moves to improve the efficiency and quality of health services, will need to introduce new policies an operational mechanism to improve its ability to manage systematically the development, utilization, development and careers of its staffs. In other words the MOH&P will need to take proactive position on HRD

Human Resource Problems and Issues:

General Issues:

- ✓ Imbalances in the mix of staffs and the skills they represent particularly in the light of a changing philosophy of health care provision
- ✓ Imbalances in the geographic distribution of staffs with 40% of the sanctioned and filed un manned
- ✓ In equalities between different types of health staffs in their knowledge and skills
- ✓ Problems of the job and role definition
- ✓ Inadequate supervision and management control with out of date HR management procedures and employment practices.
- ✓ Limited and uncontrolled staff development and career management
- ✓ Services shortage of trained management staffs and scientists
- ✓ No utilization of HRIS
- ✓ Low levels of individuals and organizational productivity and performance for some categorized of staffs with little incentives to improve.

Operational issues:

- ✓ Administrative processes not keeping pace with growth and increasing complexity of the services
- ✓ Lack of focuses on increasing the general level of knowledge and skills with in the services
- ✓ Concentration on institution expansion and service volume rather than service quality
- ✓ A management infrastructure is not developing in steps with the health services not developing with right orientation to create a health services focused on efficiency and quality.

Gap in executions:

- ✓ No mechanism in place to manage the movement o staffs into and through the health services and between the public and private sector.
- ✓ Limited capacity of HR planning policy making
- ✓ No proper systemic structure of HRD
- ✓ Staffs attitudes towards their deployment are weakened
- ✓ Jobs and roles are poorly defined and provision of incentive for better performance
- ✓ No provision of need based training
- ✓ Staffing is institution based not work load based
- ✓ Recruitment is not planned well and objectives based.
- ✓ HR performance objectives are not established in most institutions

Future problems and Issues due to improper running of the HRD system:

- There is likely to be excess of medical Officer and specialist beyond the budget
- This need to distribute doctors more evenly in districts will mean that there will be need for grater effort to control and manage the movement of doctor and key staffs. No quality and skills will be more issued
- Service quality and institutional performance will become a more significant issues
- Licensing and relicensing of higher level staffs will become essential requirement
- Salaries variation issues
- Rapidly changing environment will required policy making, planning and execution of the programme
- Establishment of health institution should be considered along with staffing
- Post basic training will be highly required
- Demand of decentralization

Human Resources for health planning and development:
(Second long term health plan1997-2017, perspective plan for health sector development)

Concept:

- The ***need for a national policy on planning and development of HR in health has been recognized*** The policy ensures appropriate numbers, types and distribution of technically competent and socially responsible health personal are available to provide health personal are available to provide health care to all people of Nepal particularly those living in rural areas.
- Fifth Development plan period, public sector requirement for sixteen selected were projected for three five year period (till 1975 to 1990)
- In 1986 detailed health personnel planning exercise was undertaken examining HRH supply and demand including NGO requirements
- in 1993 first Master Plan for the development and utilization of human Resources for Health Nepal was completed
- In 1995 focusing on the public sector excluding the military and police was developed.(See detail page 41-45)

Directions for HRH is determined by

- Consolidation of services with no significant growth in numbers of secondary / tertiary institutions
- Expansion and strengthening of Primary Facilities
- Improvement of the referral system with a strengthening of district and zonal hospitals with an emphasis on reducing non tertiary services demands on regional/ central/ teaching hospitals
- Enhancement of the level of skills in the health sectors with particular concentration on middle level staff
- Promotion of private health sector
- Development of management skills at centre and district to enable effective decentralization of health services.

Assumption of HRH planning:

- Dominant morbidity and mortality patterns: Aids, TB, Malaria, MCH and chronic diseases, Emerging morbidity related to the wealth of society, cancer, heart diseases, stroke, and diabetes.
- Relative emphasis given to public sector Vs private sector: Limited institutional growth in public sector but strengthening of staffing and management. Private sector will concentrate on specialist acute care.
- Growth rate in public health expenditures Remaining essentially in line with growth of GNP
- Relative emphasis given to personal Vs non-personal expenditures Personal expenditure will remain high but with some shift own in favour of non-personal expenditure
- Relative emphasis given preventive Vs curative care: Continued emphasis on preventive care but increased demand for curative care should be planned for
- Relative emphasis given to primary care Vs higher level care: Strengthening primary care emphasis sing MCH also, emphasizing enlarging/ strengthening existing district zonal hospitals.
- Relative emphasis given to ambulatory Vs in-patient care:
- Limited expansion of ambulatory units with focus on quality. Major emphasis on local accessibility to sec.in-patients.
- Relative emphasis given to Urban population to rural populations: Emphasis given to on rural population and non- Katmandu urban population.
- Relative emphasis given to high, medium, and support level personnel: Emphasis given to be all categories of medium level staffs.
- Other assumptions that will affect this scenario: Enhanced quality assurance – increased co-operation/ coordination with other sectors particularly with other elements of health sector

Dimension of Health workforce performance

Dimension	Description
Availability	Availability in terms of space and time, encompasses distribution and attendance
Competence	Encompasses the combination of technical knowledge, skills and behavior
Responsiveness	People are treated decently, regardless of whether or not their health improves or who they are
Productivity	Producing the maximum effective health services and health outcomes possible given the existing stock of health workers, reducing waste of staff time or skills

Determining indicator to how health workers perform?

For many years it was assumed that poor health worker performance was primarily caused by lack of knowledge and skills. In recent years this perceptions has changed, and three broad groups of factors are now recognized.

1. Characteristics of the population being served;
2. Characteristics of health workers themselves;
3. Characteristics of the health system, and the wider environment, that determines the conditions under which health workers work.

Influencing factors of health workers performance?

Job related: Job description, Norms and codes of conduct, skills matched with tasks, Supervision;

Support system related: Remuneration, Information and communication, Infrastructure and supplies;

Enabling work environment: Lifelong learning, team management, responsibility with accountability.

Key Indicators to Change for long term strategic health plan:

Year 2003	Year 2017	Projected Change
24,228,636	33,083,801	Total population
696	456	Population per health worker
14	22	HWs/ 10,000 populations
34,912	72,602	Total Health personnel
76%	71%	% of HWs in public sector
-------	5.4%	Average annual % change in HWs
0.4	0.4	Total beds/1000 populations
8,509	13,069	Total number of hospital beds
3,804	5,159	Number of private sector beds

Roles of a Human resource Planning Division:

- To manage the process of producing long term ,medium, and annual HR plans
- To provide technical support in the production of HR plans
- To co-ordinate HR plans and activities with the work of health and health services planner including planning of training
- To undertake research into the deployment , management, training and performance of health staffs
- To develop policy options, and facilitates the achievement of health services and human resource goals and objectives
- To provide advice, information to top management
- To determine the type and volume of training
- To monitor HR and HR management performance
- To develop standard for HR planning and development
- To maintain a co-coordinating and communicating network with relevant agencies and ministries
- To provide clear house of information on HR

Human Resource for Health

- Existing HR unit will be upgraded and strengthened to continuously plan, monitor and implement all aspects human resource.
- Close inter- relationship will be developed in the delivery of health service and education of health professionals through coordination between the MoHP and Ministry of Education relevant to meet the needs of the people.
- Plans and implementation measures will be developed to address to the issues of supply, effective mobilization, capacity building, incentives, improving work environment for HRH. Guidelines for implementation prepared accordingly.
- For production of high level health professionals needed for strengthening district hospitals and expanding EOC services following will be emphasized:

  - MDGP, DA,DGO and DCP in adequate number
  - National Academy of Medical Science (NAMS) will be strengthened.
  - Child Health Institute will be developed in Kanti Hospital.
- Step will be taken to produce middle level health worker like Radiographer, who are in acute shortage and are not produced by CTEVT at BPKIHS and NAMS.
- In service training and career development: To ensure good working environment for the doctors, nurses and allied health science or co- medical staff, opportunity will be provided for training and career development with fairness and justice without discrimination.
- Permanent registration of the new doctors studying under government fellowship scheme will be provided only after mandatory service in remote areas for pre determined period. These doctors though on contract service will have facilities and administrative authority similar to those in temporary service.
- Tele-medicine, Tele health and linking of district hospitals with internet and emails: Since telemedicine has been established as a powerful tool to provide technical advice to district hospitals, to upgrade the skill and knowledge to assist in treatment of the ill patients, as well as to ward off loneliness and helplessness while working single handed and thus affecting their knowledge, skill and standard of care, computer with email and internet access will be provided to all hospitals having internet facility. A committee will be formed in the MoHP/ Department of Health Service with representatives from teaching institutions, NHRC and related experts and focal point designated in the Ministry.
- Improvement in Capacity of National Health Training Center:
  - Appropriate Modern technology including teaching aids and resources will be provided to the National training center for improving the quality of training
  - Training of Trainers will be provided to upgrade the skill and technical capacity of the trainers.

Quality Assurance

- The policy of Government of Nepal to ensure assurance of quality health service will be implemented .The priority area will be :
  - Standardization of health care facilities
  - Formulation and implementation of clinical protocol and clinical algorithm for effective management of the problems and bring uniformity.
  - Training for the health workers of all categories for developing good inter- personal communication skill
  - In the process of verification whether professional ethics have been adhered to or not. The concerned professional council will prepare the code of ethics where it is not available and be implemented with involvement of the concerned council.

Role of Various agencies in HRH planning:

A high level Commission for Health Professional Education should be established in coordination with various medical colleges and universities to maintain high standard in human resource development for quality health care, for guidance and to provide

recommendation to make the effectual Profession and Education to meet the needs of people. Till the date there are following councils under the Government of Nepal for the quality control and licensing of health professional in the country.

1. Nepal Nursing Council2052,
2. Nepal Medical Council2020,
3. Nepal Health Professional Councils2053,
4. Nepal Health Research Council 2047
5. Ayurvedic Medicine Council 2045
6. Nepal Pharmacy Council 2057

Roles and responsibilities of Councils in the HRH planning system:

1. All the above mentioned councils are responsible and authorized for quality control,
2. They monitor and supervise their respective subject areas academic institutes
2. They also recommend the course curriculum for quality control of the area
3. Councils are responsible for defining the examination system of the respective areas.
4. They set the prerequisite of the entry in the subject areas.
5. They provide professional license and renew it in their respective areas.
6. They monitor the characteristics of the professionals

Role of various agencies in HRH planning:

National planning commission:

National planning commission is a single one authorized organization which compiles the HRH demand of the Ministry of Health and Population. Similarly it provides approval for HRH production as per capacity of Ministry of Education .It is also responsible for international training of specialized areas to meet the country's requirement. It also prepares the short term and long term HRH plan for the nation. The decision based on National planning commission the public service commission announce ant necessities manpower and recruit various posts on the basis of law and regulation.

However, the strategic health manpower (1997-2017) plan It must be reviewed by officers of the Ministry as they determine construction priorities. This special report has been prepared at the request of the Ministry of Health, especially by the then Honourable Minister and the Planning Chief

Ministry of Health and Population:

Ministry of health and population arranges for short term international training course, funded international and national scholarship academic program of the HRH of the country but all the national level training goes through NHTC.

National Health Training Center (NHTC) is an apex body under Ministry of Health and Population to address human resource need for MoHP in line with long term health plan and NHSP- IP. In this regard, the National Health Training Strategy (NHTS) 2004 was revised and updated for a consistent and comprehensive training strategy to meet human resource need as per the National Health Policy, Nepal Health Sector Strategy and Nepal Health Sector Program - Implementation Plan (NHSS/NHSP-IP).

The overall goal of NHTC is to produce/prepare efficient health service providers by means of training to contribute to deliver quality health services towards attainment of the highest level of health status by the people of Nepal. It performs following training and Human resources development:

In Service Training:

For health workers working in GoN/Health services, in service training is conducted in the following categories.

- **Initial Training:**
  For training health workers such as Malaria, FP, TB, EPI Assistants required for various programmes
- **Refresher Training:**
  For updating knowledge /skills of incumbent health workers
- **Specialized Training:**
  Additional skills training to enable health workers with additional responsibilities like VSC, IUCD, BEOC/CEOC services, CAC
- **Up-grading Training:**
  Training health workers for carrying out additional job/functions required by a higher position as for example training of VHW to become AHW, ANM to become Sr. ANM
- **Orientation Program:**
  Orientation on health programme of MoHP for newly recruited health workers, community leaders.

Certification and accreditation

NHTC is responsible to accredit and certify institutions offering courses after assessing their physical facilities and technical capacity. Training courses of more than one month duration offered for MoHP personnel will be accredited as they are taken into consideration for career development. Local level coordination committee will also be formed at Regional and District Level.

- *Bio-Medical Equipment/Instrument R/M Training*
  Recently NHTC has started to conduct training in Bio-medical equipment /Instrument repair and maintenance.
- *Integrated Health Management Information System Training*
- *Community Drug Training Programme*
- *Training for HET (TA)*
- *Female community Health Volunteer Training*
- *Logistics Training*
- *Up-Grading Training:* Up grading training for MCHW to ANM
- *Development of essential health care management training package*
- *Health Institutions Decentralization programme*
- *Pre-Job orientation*
  Pre-job orientation for newly recruited Health Assistant and Auxiliary Health Workers and Job entry orientation for Medical Officer

Ministry of Education:

Institute of medicine and its colleges are running under education Ministry. They produce especially bachelor level human resources and some categories of master also. All the

institutes of medicine are the source of HRH production. Generally they produce the HRH on the basis of Physical capacity of the institutes.

- Tribhuvan University
- Nationla Academy of Medical Science, Bir Hospital
- Patan Academy of Medical Science, Lalitpur
- BPKIHS Dharan is also an important center for HR production for health sector.
- CTEVT is a prime factory for production of middle level and gross root level human resources like HA, SN, AHW, ANM, MCHW, VHW below to district level in many district.

Kathmandu, Pokhara and Purbanchal University
The universities are producing HRH through private colleges sector. There are more than 12 private medical colleges in the country and several numbers of colleges on paramedics, public health, nursing, biomedical engineering etc. Mostly they produce bachelor level human resources. They produce the human resources on the basis of proposal submitting to respective university for approval from council and education ministry.

Abroad: Many graduates in many disciplines are coming from many universities of the many countries. But product of Europe and America are supposed very good one and production from developing countries are not supposed as quality HRH. However t government is only waiting and watching like a child for it.

Critical analysis of the existing HRH planning process in the context of national health services system of Nepal. HRH planning models from other countries

In early days of health planning in this country a number of plans were made. Subsequent to this, there was a tendency for part of the plans to be suddenly and periodically changed by ministers and secretaries. With change in individuals, the priorities were sometimes so drastically altered that it became difficult to work.

The Ministry provides a wide coverage in its primary and secondary health care services. However there is a general problem of under-staffing in all those institutions, particularly in rural areas, with some 40% of sanctioned and filled posts without the incumbent in place. This has been a long-standing problem, especially for the more highly trained staff cadres (see Document for the Human Resources for Health Master Plan).

The differentials in pay between senior staff and unskilled workers are small. The ratio of pay between the highest and the lowest grades of staff is approximately 2.8 to 1. Differentials between these grades of staff are more normally between 6 and 10 to 1. Differentials for middle-grade staff to unskilled workers are also low, and provide a little in terms of discrimination between different levels of skills and are in need of reappraisal.

Employment practices have not yet been brought into line with new social and political philosophies. Current practices maintain the **"status quo"** of earlier times and will inhibit the development of a modern new style health service. Information on vacancies and on the movement of staff in the service is either not available or is not currently assembled in a form which will enable planners and decision makers in the Ministry to make consistent decisions in the allocation of new staff. This poses difficulties in developing this strategic plan. HR planning does not exist as a formal or regular process, while HR management is addressed in

terms of personnel functions, which do not include a strategic view of HR development. The concept of proactive management and manager is not yet established in the Ministry.

It is likely that the Ministry, as it moves to improve the efficiency and quality of the health services, will need to introduce new policies and operational mechanisms to improve its ability to manage systematically the deployment, utilization, development and careers of its staff. In other words, the MOH will need to take a proactive position on human resource development (HRD).

In context of Nepal, National planning commission is lead organization for planning process of health and other development works. Bottom up and top down approach of planning process applied by Nepal on feasible way of political party. Somewhere the proposal developed through the peripheral health institution and somewhere the health planning developed by top level of MOHP. These proposals sent to the National planning commission. It decided and approves the human resource proposal and sent to finance for allocation of budget and sent to public service commission for starting the recruitment procedure to fulfill the sanctioned and new post. Direct influence of the political party, leader and ministry there may be political recruit also.

Beside this Nepal have long experience of health planning and policy the major are listed below,

- First long term health plan (1975-1990)
- Country health resource and priorities (CHRP) developed on seventh and eight five year plan of Nepal
- National health policy 1991
- Development of preventive and promotive health service
- Second long term health plan 1997-2017
- Strategic plan for human resource for health 2003-17

Policy reform

- National health policy 1991
- National drug policy1995
- National policy for control of AIDS and STDs 2052 BS
- National Ayurvedic health policy 2052 BS
- Safe motherhood policy 1998

Other efforts

- Health sector reform
- Millennium development goals
- Vision 20/20

  Based on this policy and planning the government planning, production and utilization of HRH what so ever Nepal always unable to meet its policy goal and objective.

The drawbacks characteristic and the existing situation of human resource planning

1. *Poor tradition of human resource planning*

   Nepal has a poor tradition of human resource planning. The "Feudocratic Administrative Model" promotes ad-hocism, guesswork and hunch resource planning. The education system is not friendly to the needs of labour market. The country lack of comprehensive human resource surveys.

2. *Lack of Assessment of current human resource planning*
   In health organization lack of up to date human resource inventory which describe the skills currently available
3. *Missing demand forecast*
   Lack of proper demand forecast in terms of number and skills of HR required even though MOHP developed the strategic human resource plan 1997-2017 but not properly implemented and lack of coordination in between related stakeholder like MoE, MoF, National Planning commission and private organization.
4. *Missing supply forecast*
   Lack of properly forecast of human resources from inside and outside sources. Promotion and transfer are not planned in advance but doing under influence of politics and power.
5. *Mismatch of demand and supply*
   Nepalese health organization and government do not give proper attention to matching demand and supply forecasts to determine future shortage and surplus. Succession planning is not done where as career planning also missing.
6. *Short term horizon*
7. *Overstaffing and political influences*
   The number one priority is given to recruit political worker on the direct influence of political party so most of government health institution is victim of overstaffing in central and headquarter region but in rural area the community people unable to receive health service. .
8. *Private sector lackluster*
   The family owned and managed private sector health institutions do not bother much about human resource planning. They prefer to hire their relatives, friends and "near and dear".

Q. Describe the stages and step of health manpower planning :

Health Manpower planning : Health manpower planning is the process of estimating the number of persons and the kind of knowledge, skills and attitudes they need to achieve predetermined health targets and ultimately health status objectives. Such planning involves specifying who is going to do what, where, how and with what resources for what population groups or individuals so that the knowledge and skills necessary for adequate performance can be made available according to predetermined policies and time schedule.
As an intrinsic element of the health manpower development process, health manpower planning is also concerned with the production and management of health workers. It is an essential component and an integral part of national health planning which in turn take place within the framework of national planning for overall social and economic development. It should therefore be based on the overall national political framework, health policies and plans.

The goal of health manpower planning is to ensure the provision of the most economical combination of the manpower skills needed for the effective, efficient, and safe delivery of the health services that can be provided within the available resources.

Stages of planning process:

The planning process is both dynamic and cyclical. It is dynamic in the sense it must continually respond and adapt to a changing situation, and cyclical in the sense that it must progress through repeated stages of data collection and analysis, plan formulation, implementation, and evaluation. The major stages typically included in the planning process are shown in the figure below:

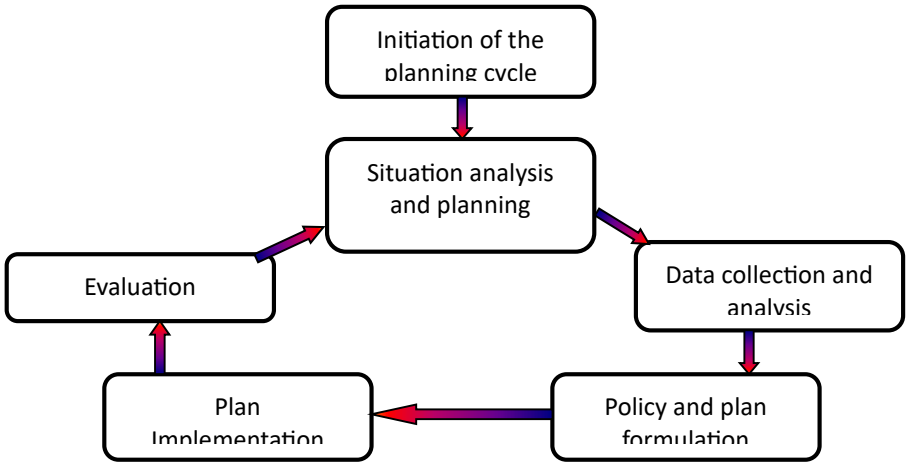


Figure: stage of the planning process

Stage 1: Initiation of the
This stage includes motivation for planning, identification of major problem areas, request for help by definite groups. The initial force for starting the health manpower planning may come from any source outside the health sector such as National Planning Commission, MOE etc but most commonly either started or supported by national health authorities such as MOH.

Stage II Situation analysis and planning
This stage involves preliminary survey of planning context, review of priorities and constraints, planning of the planning, study designs and role of relevant agencies and the institutions and the public. This stage is crucial for the success of planning effort. Even before the planner begins their preliminary review of health priorities, data availability and the health situation and system, they need to establish the existence of at least the minimal pre-requisites for effective health manpower planning.

Stage III: Data collection and analysis
This stage is characterized by the activities such as sample selection, questionnaire design, data collection and verification, preparation of projections revision of priorities and study designs as appropriate. At this point it becomes necessary to quantify the planning problem, to draw up an inventory of resources and their use and to make projections of population growth, manpower production, and other relevant factors.

Stage IV: Policy and plan formulation
It includes activities such as review of alternatives, cost benefit and other special studies, discussions with policy makers and other interested groups, policy and plan formulation and communication of the decisions. At this point, out of the wide variety of alternatives proposed, the most appropriate options are selected on the basis of feasibility, acceptance, effectiveness, cost and impact on other aspects of health system.

Stage V: Plan implementation

The major activities performed under this stage are programming and project formulation, and planning of the management functions. The approved plans must be then converted into detailed programms that contain the activities to be carried out, the methods to be applied, the resources to be used, costs involved and the timings of each operation. The continued commitment and participation of all those involved from the beginning must be ensured at the process.

Stage VII: Evaluation
Under evaluation, the questions such as how valid the policies were, how well they were implemented and how good the result was are important. It is too often the neglected part of planning process where there tends to be a long latent period between the decision to act and the results of such decision. Evaluation helps to correct the mid coarse deviations of the plan.

The stages described above are rotating in a cycle involving a continuous chain of stages, events and activities, more or less in subsequent order. At every stage, there is mechanism of feedback for evaluation.

Steps of Health Manpower Planning:

Health Manpower Planning involves the following steps:

1. Identification and analysis of problems

Need assessment: in terms of quality and quantity

A. Information Collection

Through human inventories, human resource information system, health manpower situation reports, survey, task analysis, Replacement charts/Succession plans, supervisory recommendations

B Situation analysis

i. Review of health manpower situation-existing manpower
ii. Trends in internal and external supplies,
iii. Current manpower requirements-quality, quantity and distribution,
iv. Future supply,
v. Mismatches in demand and supplies,
vi. Organizational and management problems including gaps in competencies of manpower, gaps in current and desired competencies, manpower surpluses and shortages,
vii. Current and future manpower strategies and organizational plans.

2. Developing and forecasting planning premises

Planning premises assumption and prediction about the environment in future in which the plan is to be carried out. According to Fayol, the entire plan of an enterprise is made up of a series of separate plans called 'forecasts'. It includes forecasts in internal and external supplies.

Approaches to forecasting

a. Qualitative:
   i. Expert opinions
   ii. Delphi technique

b. Quantitative mathematical modeling
   i. Regression analysis/Trend analysis
   ii. Markov analysis

iii. "Bottom-up" approach

3. ***Determine and evaluate alternative***
   The next step is to search and identify alternative course of action. A particular objective can be achieved through a number of ways and those ways may have unique strength weakness, opportunity and threats.
4. ***Selection of appropriate alternatives***
   This is the best plan at which the plan is based.
5. ***Determination of the technical methods to be used, whether in the form of services or of physical changes***
6. ***Definition of program objective and the detailed health manpower development plan.***
   After the best plan is decided upon, the next step is to work out its details, formulate the steps in full sequence.
7. ***Obtaining the human and financial resources necessary to implement the chosen plan.*** The human and financial resources necessary for the achievement of the objective should be identified.
8. ***Implementation of the plan***
   Defining the tasks in such way as to make use of the available skills developing and increasing skills and capabilities
   Motivating people to accept the objective and to work towards them by the chosen means
9. ***Monitoring and controlling and evaluating so as to adjust the methods chosen in the light of experience.***
   Different problem that may arise during the implementation of the plan of action can be corrected if appropriate supervision and monitoring processes are planned. Whether the objective devised are fulfilled or not is found out through evaluation.

Q. Enumerate the national health manpower policies of Nepal.

Policy is a plan of action adopted by the government to achieve Goals, objectives and target set. The need of national policy and planning for human resource for health has been long recognized in Nepal. But specific national policies and plans for HRH were outlined only with the adoption of the National health policy 1991 and the Eighth Five Year Development plan 1992-1997.

Areas outlined by National health policy 1991

1. Capable manpower required for various facilities will be developed in a planned manner.
2. Necessary cooperation will be extended for the institutional development to raise the capacity of the main organizations producing health personnel IOM, CTEVT and training centers under MOH.
3. Necessary arrangements will be made for training in foreign countries in order to produce those categories of personnel which are not produced in the country.

Areas outlined by Eighth Fiver year plan.

1. The capability of training institutions including IOM will be expanded to produce additional personnel in a planned manner.

2. The public and private sector will be mobilized to produce high levels health personnel graduate and post-graduate in Nepal. Basic and mid level health personnel will be trained in the country with some speciality and super speciality trained overseas in recognized institutions.

After these plans, Second Long term health plan 1997-2017 outlined more specific policies on HRH. And these policies are categorized under two headings:

A. Policies on human resource planning and development
B. Policies on human resource management

A. <u>Policies on human resource planning and development</u>

1. The highest priority will be given to decentralizing HRH planning within the broad national guidelines of the HRH master plan.
2. The scope of the HRH master plan will be gradually broadened to include INGO, NGO and private sectors. The "master plan" will maximize input from lower levels, increase sensitivity to local needs and effectively link HRH planning to the overall health planning framework.

3. For immediate future the type and number of personnel needed for health service delivery through MOH will be based on 1996 MRH Master plan. MOH will replace he sanctioned post based methodology with a "service target" approach which specifies the level of services that should be provided. In employing the "service target" population ratios for community based health workers adjusted for geographical area" will be used.

4. Periodic assessments of the need and supply of health personnel will be undertaken with the co-ordination and collaboration of various sectoral and iner-sectoral committees, individual ministries, organizations and professional bodies involved in planning, production and use of HRH.

5. Production of clinical, technical and supportive health personnel for all systems of medicine will be based on their projected need rather that the capacity of the training institutions.

6. Norms, standard and criteria to assure quality education and training of health personnel will be developed for all systems of medicine. The requisite compliance mechanism will be established placing public and private institutions which train clinical, technical and support personnel under accreditation schemes with periodic reaccreditations. Compliance is to be monitored by concerned professional councils.
7. Standards, criteria and the requisite compliance mechanisms governing establishment and operations of public and private medical schools and institutions for the training of health personnel will be developed for all system of medicine. At a minimum, the standard and criteria will address issue of:

   - Health sector priorities and needs
   - Regional geographic balance
   - Gender equity in enrollment

- Reservation for individuals from remote areas who meet entrance requirements
- Feasibility and sustainability
- Financial and human resource implications for existing health sector priorities and
- Their effect on existing medical schools and training institutions

8. To ensure regional/geographic balance for candidates from remote areas and secure gender equity in enrollment, subsides will be provided to cover pre service education, costs for training of basic and mid level health personnel.
9. The MOH will terminate its involvement in pre service training, refocusing its effort on in service training, refresher course and continuing education. MOH will apply integrated training and distance learning approach for all levels of health personnel.
10. In – service "training blocks" that give adequate scope for career advancement will be established, especially for basic health workers.

B) <u>Policies in human resource management</u>

1. There will be strict adherence to the rules and regulation regarding recruitment, selection, placement transfer and deputation of staffs.
2. Clear and explicit job description based on standards and guidelines by type of institution will be developed and implemented for all levels of technical and supports staffs within MOH.
3. A transport performance based and result oriented incentive system will be developed and implemented.
4. A system for integrated supportive supervision of technical and support personnel at central, regional, and district levels and below will be developed and implemented.
5. The responsibility, necessary authority and resources for Human Resource management related tasks will be developed to Regional health directorates, District health offices and the relevant health committees. The border role of Health committees at a minimum will include supervision of SHP, HP and PHCC personnel; assessment of personnel requirement.
6. Private practice of paramedical staffs (ANM, AHW AND) has will legalized for the provision of certain service. Mechanisms for appropriate oversight of paramedical staff practice will be developed and implemented.
7. Effective co ordination between ministry of health and other ministries responsible for personnel management will be encouraged activity. Provisions in the "Health service act" and Ministry of health regulations governing recruitment, selection, placement, transfers and deputations shall be simplified and beurocratic delays affecting HRH management.

Q. **How do you estimate HR for health need of a country?**

Health Needs: Health Needs have been defined as "Deficiencies in health that call for preventive, curative, control or eradication measures." It represents an estimation based on professional judgement and current medical technology of the number of workers or amount of service necessary to provide an optimum m standard of health care.

Health needs estimation is a systematic method for reviewing the health issues facing a population, leading to agreed priorities and resources allocation that will improve health and reduce inequalities.

Health needs determined should be distinguished from health wants, which reflect the service desired by the public whether or not health professional consider them to be necessary.

Health needs estimation is a recommended public health tool to provide evidence about population on which to plan services and address health inequalities. It provides an opportunity to engage with specific populations and enable them to contribute to targeted service planning and resources allocation. It also provides an opportunity for cross-sectroal partnership, working and developing creative and effective interventions.

Health needs estimation can usefully inform: Health equity audits, Local delivery plans community strategies, specialized services commissioning, Health and social care, joining planning and commissioning and general practice strategic development plans.

Health needs of a country are estimated on the basis of following areas

1. Priority area
2. Burden of disease
3. Demand
4. Resources availability
5. Equity consideration

1. Priority area: Each country has set its own priority areas for different types health activated. The priority health needs are chosen with respect to priority in hierarchy. The 10th national health plan of Nepal has set following priority areas:
   - National Polio Programme, Expand programme on immunization
   - Control of acute respiratory infection and diarrhoeal disease
   - Nutrition programme
   - Maternal Child Health Family Planning Programme, FCHV programme
   - Epidemiology Kalaazra, Malaria etc.
   - Research and Training Programmes: Leprosy, AIDS
   - Health education
   - Integrated Supervision and monitoring
   - Drug Supply
   - Medical tools and equipments
   - CDP (Now this is not in priority focus)
   - HMIS

Second priority programmes:

- Hospital(tertiary services)- Bir, Teku, Maternity, Patan mental and Kanti Hospitals

- Laboratories
- NHRC
- Supervision, management, Evaluation strengthening programme.
- Repair and maintenance of Health Institution.

Third Priority Programme:

- Eye hospital, BPKIHS, BP cancer hospital, Gangalal Hospital, Sinha darbar Bidhya khana ,
- PG medical education programme
- Alternative medicine, Ambulatory care.
- Drug abuse contral Programme.

2. Burden of disease: Burden of Disease is a determined in terms of magnitude and servity of disease. The developed countries have achieved a great success in controlling the communicable diseases. However due to increase in luxurious life style, the burden of non communicable diseases like hypertention, diabetes and cancer is increasing. Developing countries like Nepal are facing the burden of both communicable and non communicable diseases. In Nepal, communicable diseases like TB, Malaria, ARI, Diarrhoeal disease are existing and AIDS is being more and more serve problem. The Prevalence of non communicable diseases like cardiovascular disease. Diabetes, Cancer are in increasing trend. Nepal has to pay attention and priority towards both communicable and non communicable diseases in estimating health needs.

3. Demand: Consideration of health demand (of utilizing people) is an important aspect of health need estimation. Health demand is affected by:
    - Geographical location. e.g. living in deprived neighborhoods or housing
    - Settings eg schools, prisons, workplaces
    - Social experience e.g. asylum seekers, specific age groups, ethnicity, sexuality, homelessness
    - Experience of a particular medical condition

4. Resource availability: Health needs should be determined in such a way that the needs can be fulfilled by available resources. Locally available resources in terms of man, money, material and motivation should be emphasized.

5. Equity consideration: health needs should be estimated with consideration of equity, access and quality services in both rural and urban areas irrespective of gender, cast, religion and other inequalities. The need estimation should encompass the principles of sustainability, communication participation, gender sensitivity, effective and efficient management and public-private partnership.

Health needs estimation criteria

Health needs estimation is worthwhile undertaking only if it results in changes that will benefit the population. It is essential to be realistic and honest about what you are capable of achieving.

Four criteria should be used in selecting issues for intervention:

- Impact which health conditions and determinant factors have the most impact in terms of size and severity, on the health functioning of the population.
- Changeability- The most significant health conditions and determinant factors can be changed effectively by those involved in the estimation.
- Acceptability- changes need to achieve the maximum impact should be acceptable.
- Resource feasibility-Adequate resources should be available to make the required changes.

Steps of health needs estimation

Step 1
Getting started with the identification of population, resources and the risks?
Step 2
Identification of health priority area through demographic data and health survey, gathering data, perceptions/ requirement of needs, identifying and assessing present health conditions and determinant. factors.
Step 3
Assessing a health priority for action by Choosing health conditions and determinant factors with the most significant size and severity impact, determining effective and acceptable intervention and actions.
Step 4
Planning for change throughout clarifying aims of intervention, action planning, monitoring and evaluation strategy and risk-management strategy
Step 5
Moving on through Learning from the Programme, measuring impact and choosing the need priority.

Health needs estimations are worthwhile undertaking only if they result in change that will benefit the population. It is therefore essentials to be realistic and honest about what is expected to achieve.
It should be checked that:

- Clear aims and objectives have been identified
- There is an established need
- The right people are involved- this should include who knows about the issue, who Care about the issue, and who can make change happen.
- There is sign-up to from senior managers and skills can be appointment.
- Access to the target population and their willingness to engage has been established.
- A committed and skilled term can be appointment, Key stakeholder can be identified
- Adequacy of resources- time, space, equipment, skills and funding to conduct a good quality Health needs estimation.

Challenges of Health need estimation.

- Working across professional boundaries that prevent power or information-sharing
- Developing a shared language between sectors.
- Obtaining commitment from 'the top'
- Accessing the target population

- Maintaining term impetus and commitment
- Translating findings into effective action.

HRH Production

Concept of HRH production

HRH production refers to all aspects related to the basic or post basic education and training of the health labour force. The production system includes all the educational and training institution together with researcher and trainers which are increasingly on joint responsibility of service and educational institution.

Human resources

- Composed of skills and knowledge of workers
- Investment in human capital refers to activities that increase the human capital and productivity of individuals.
  Example: education, training, experience.
- Human resources differ from non-human resources:
- Human capital is embodied in the individual.
- Human resources can't be bought or sold.
- Only their labor services can be sold

The human resource production can be mainly dealt under,

Demand and Supply

1. Demand, need and requirement

Demand refers the sum of the amounts of the various types of health service that the population of a service area will seek and has the means to purchase at the prevailing prices within a given time period. Demand estimation based on professional judgment and current medical technology of the number of worker or amount of services necessary to provide an optimum standard of health care.

Demand for Resources

The demand for resources is derived from the demand for the products that the resources help produce.

Example: A service station hires Epidemiologist because of their community demand investigation of diarrheal cause.

The quantity demanded of a resource is negatively related to its supply and utilization for two reasons:

1. Substitution in production
   - If one resource input becomes more expensive, producers will shift to lower-cost substitute inputs.
   - The better the substitute inputs, the more elastic the demand for the resource.
   - Substitution in consumption
   - The more elastic the demand for the problems, the more elastic is the demand for the resource.

2. As the price of a resource increases, producers that use the resource intensely will:
   - Turn to substitute resources,

- Face higher costs Both of these will lead to higher prices and a reduction in output.
- At the lower rate of output, producers will use less of the resource that increased in demand.
- Both of these factors contribute to the inverse relationship between the supply and amount demanded of a resource.

Estimating demand

As a consequence, it can be concluded that there is no "best" method or combination of methods for estimating demand that is applicable to all situations. More usually a combination of methods will be needed, each method being applied to that portion of the plan for which it is best suited.

Just as a combination of methods may prove most useful in the assessment of demand, so it will probably be preferable to study the demand for health personnel working as teams rather then for individual manpower categories such as nurse, HA, or doctor in estimating the demand for one category apart from the demand for others with which it interact substantially there is a risk that important variable bearing on demand will be neglected. To minimize this risk it will usually prove advantageous to include in the planning team persons drawn from the various health professions and not the reverse, not infrequently the letter seems to be the case.

Finally the planner should not minimize the strong interaction between the supply of and demand for health service and consequently, for health manpower. Optimally the anticipated demand for health care however calculated, should be the primary determinant of manpower supply polices and not the reverse, not infrequently the latter seems to be the case.

Methods of estimating demand

There are five methods of estimating the demand for health manpower, which are as follows:

1. Health need approach
2. Service target approach
3. Health demand (or economic) approach
4. Personnel (manpower) to population ratio approach
5. Managed health care system methods.

1. **Health needs approach:**

It is normative in orientation this method seeks to determine what health services people actually require to keep then healthy. The determination is made by health professional, with or without the involvement of the consuming public and based primarily on medical and technological consideration.

The health need methods is appealing both to the planner and to the health worker. For the former it is logical and rooted in the attractive at times questionable assumptions that the provision of health care rests on a strong scientist basic for the letter it is consistent with the prevailing social clinic that will should be provided are health service according to their needs and without reference to social or economic criteria that have no bearing on their needs.

To use health needs approach to estimate demands the planner will need.

- To determine the disease specific mortality and morbidity rates a country.

- To prepare norms governing the number, kind, frequency and quality of service to be provided to persons suffering from each disease category.
- To prepare staffing norms was to convert the varies service.
- In calculate the total personnel hours needed in target year for the projected population based on the disease specific morbidity rates, the service required per sick person and the amount of personnel time required performing each service.

2. Health service target approach

In this method the primary focus is on setting target for the production and delivery of health service. This target are established by the health authorities and may be based on a wide variety of inputs including health needs, economic demands, consumer wants and manpower ratio. This method usually presupposes a health system that takes an active role in shaping sectoral developments it seeks to disaggregate for analytical purpose that various component parts of the system; and it seeks a good balance between what the population needs, what it wants, what medical technology can offer and what society can actually delivery at a given point in time.

3. Health or economic demand

This method asks what number and of health services. People will actually use at the anticipated monetary and other costs of obtaining these services, given, certain assumptions about their cost and accessibility . For this methods the professionally determined need for and the quality of the services to be demanded are of secondary importance.

4. Manpower/ population ratio.

This methods uses an observed of desired manpower/ population ratio as the for deriving manpower requirements. Such a ratio can either be used as the primary technique for estimating requirements . For example 1000 health workers are required to meet the health needs of a population of one million, then the derived manpower. Population ratio- based on the health needs approach- is one per thousand.

5. Managed health care system methods.

This method assumes population and reasonably good access to care.

Standard- setting

All five above methods for estimating demand require standard for calculating manpower requirements. These standards may be professional judgment or international experience. Standard setting should follow the following points:

- Maintaining the status quo
- Experience and professional judgment
- Situation observed in the most favored region
- International comparisons and standard
- Task analysis and functional analysis.

<u>Factors affecting demands.</u>

A wide variety of factor can influence the demand for health manpower only some of which are subject to a measure of control within the health actor listed below,

1. *<u>Demographic :</u>*
2. *<u>Economic:</u>*
3. *<u>Social and culture</u>*
4. *<u>Health status</u>*

5. *Accessibility*
6. *Resource availability*
7. *Resource productivity*
8. *Health care technology*

Supply

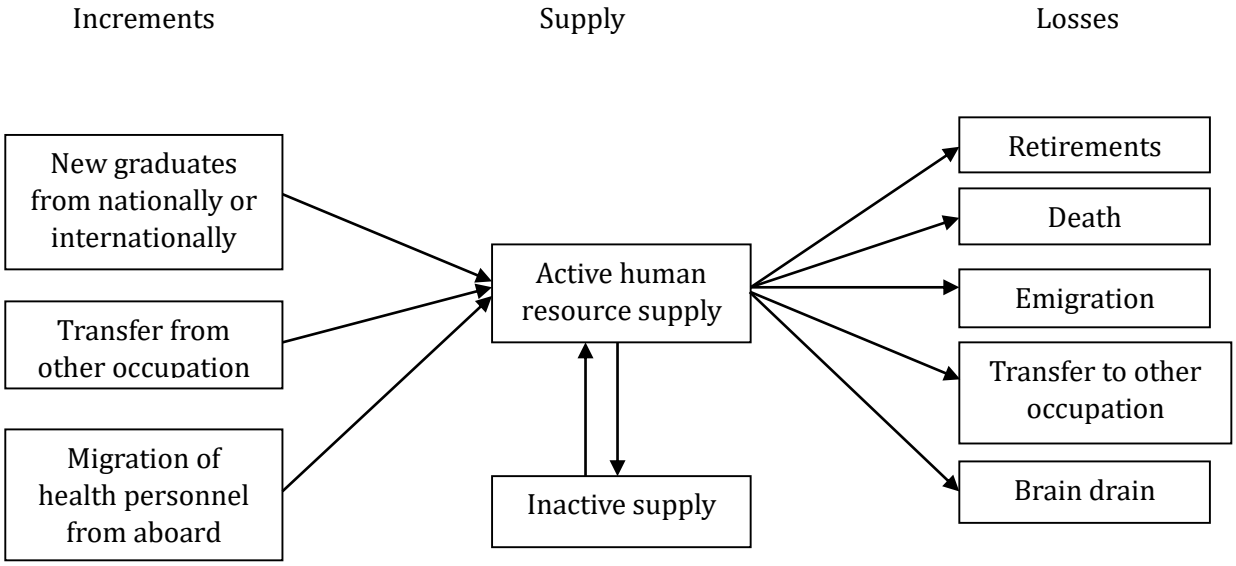
For the health planner supply usually refers to the availability and characteristic of resource or services at a given time at a figure time according to specified assumptions about production losses and use. This can be economist supply is the reverse of demand. Supply analysis has three main components, the effort that should go into the study of each component depending on the principal problems existing or anticipated. The components are,

Current supply: The current stock of qualified health manpower. The stock has two subcomponents, the active supply, persons employed or seeking employment in the health sector and the inactive supply, qualified persons potentially able to serve in the health occupations, who are either retired or engaged in other activities.

Future increments: Probable addition to the stock of qualified persons. In projecting these increments planners need to consider the planned and potential capacity of the country's health training programmes and attrition within the training programmes.

Projected losses: Including the expected losses from attrition over time from both the current and future supply and future increment.

Component of health manpower supply



Supply of Resources

- The amount of a resource supplied is directly related to its price.
- The short-run supply elasticity of a resource is determined by how easily the resource can be transferred from one use to another, or resource mobility.
  - If resources are highly mobile than the supply curve will be elastic even in the short run.

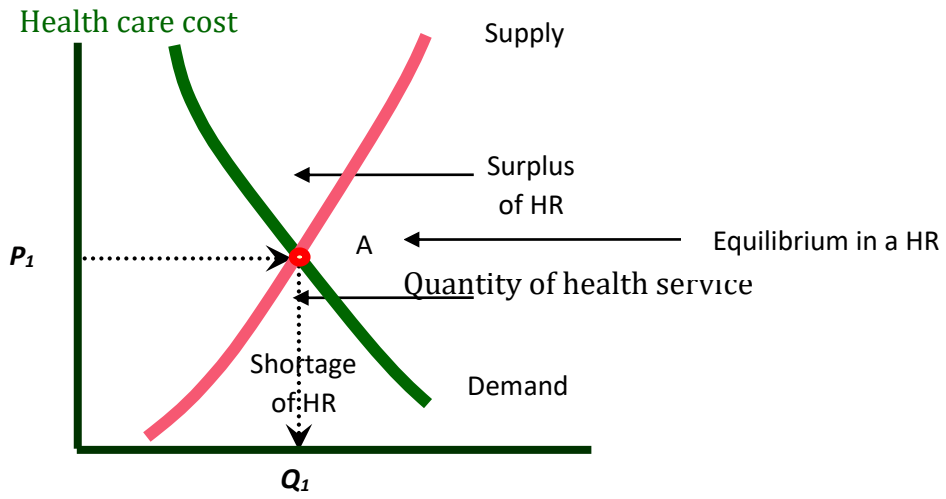
- The supply of a resource will be more elastic in the long run than the short run.
- In the long run, investment can increase the supply of human resources.
- As the demand of a HR increases, organizations have a greater incentive to supply it.
- Therefore, a direct relationship will exist between the demanded of a resource and the quantity supplied.

The relationship between Supply, Demand, and Resource Prices

Resource Prices

- The health care costs of resources are determined by supply and demand.
- Changes in the market health price of resources will influence the decisions of both users and suppliers.
  - Higher resource prices give users a greater incentive to use substitutes.
  - Higher resource prices give suppliers a greater incentive to provide more of the resource.

Equilibrium in a Resource Market



The ***market demand*** for a resource, such as health service, is a downward sloping curve, reflecting the declining Marginal revenue price ***MRP*** of the resource.

- The ***market supply*** curve slopes upward since higher resource prices (wages) will induce individuals to supply more of a resource.
- Resource price ***P1*** brings the choices of buyers and sellers into harmony.
- At the equilibrium price (***P1***), the ***quantity demanded*** will just equal the ***quantity supplied***.

Q. Analyze demand need and requirement and manpower projection during manpower production?

One of the most important and difficult aspect of health manpower planning is the estimation of demand. With out a clear understanding of the variables that influence the demand for health care and of the ways they may change with, even sophisticated analysis of manpower characteristics, distribution, productivity and costs can contribute relatively little to policy formulation .

The word demand, need and requirement of manpower make confusion regarding their meaning.

The definition and analysis of demand need, and requirement regarding manpower are given below.

Demand:

According to the market economist, demand is a measure of the quantities of goods or services that buyers take at alternatives prices. Such factors as income, preference and the relative price of other good are taken as constant. In other words demand refers to the sum of the amounts of the various types of health services that the population of a given area will seek and has the means to purchases at the prevailing prices with in given time period.

As applied to health sector, a demand curve shows how the use of a given health workers services varies with the price of such services, for each price level there is different utilization level of effective demands.

Needs:

Need represents estimation based on professional judgment and current medical technology of the number of workers or amount of services necessary to provide an optimum stander of health care.

The Humanistic ethic has often caused planners to regard health services as of such positive value that they should be made available to all citizens regardless of their social or economic situation. As a result much health planning has been based on professionally determined estimates of the presumed need for health service. Need exceeds demand when there are inefficient resources to produce or purchase services in accordance with professionally determined need.

Requirement

Requirement refers to the amount of service, manpower etc. required to satisfy a given sets of assumptions about how the health sector does, could of should function. This assumption may or may not be made explicit and may be premised in any one of a number of different approaches to planning.

In recognition of the semantic confusion that sometimes arises through use of the word demand, planner may find convenient to use the more neutral word requirement, which does not carry with it implications about the underlying approaches and assumption used in their determination.

A wide variety of factor influences the demand for health manpower. These factor are:

- *Demographic:* Size, density, growth rate, age structure, sex ratio of the population
- *Economic:* At any given price, a strong correlation usually exists between income and the demand for health care. In the absence of a price variable, as in government financed health care system, the waiting time for services and other such variable will tend to replace the price between supply and demand.
- *Social and culture:* Educational level, level of health consciousness, awareness about availability of health care etc.
- *Health status:* Morbidity, mortality, disease pattern etc.
- *Accessibility:* Travel time, waiting time, convenience of time for services, social and cultural barriers to receiving services etc.
- *Affordability:* The costing of health service

- *Resources availability:* Manpower, hospital beds, and other accessory resource.
- *Resources productivity:* Assuming a given availability of manpower, hospital beds etc if resources productivity is increased the output of services will be greater and a higher level of demand can be satisfied.
- *Health care technology:* Availability of new and efficient technology.

Manpower projection

The projection of manpower requirement in future is an essential component of human resource of development. There are varieties of manpower requirement projection method, these are:

1. Supply side projection
   This is done by cohort analysis and annual loss rate of manpower.
2. Demand side projection
   In this following methods are used:
   - Health need method
   - Health services target method
   - Health (or economic) demand method
   - The manpower/population ratio method

Health Need Method:

This method seeks to determine what health services people actually require to keep them healthy. The determination are made by health professions, with or with out the involvement of the consuming public, and are based primary on medical and technological consideration. Other issues, such as cost, the capacity to deliver the services needed, and the degree to which people are seeking health services are many be important but are secondary concern.

It is especially useful in planning preventive and public health programme and in countries with a strong data base a reasonably adequate health system infrastructure and a strong committement to planned change.

Health services target method:

In this method the primary focus is on setting targets for the production and delivery of health services. The target are established by the authorities and may be based on a wide Varity of inputs including health needs economic demand, consumer wants and manpower ratio. This method usually presupposes a health system a that takes an active role in shaping sectoral development.

It's advantage include flexibility the potential for disaggregating the several components of demand and less stringent data required than for the health need method. It's limitation includes the risk that unrealistic target will be set and that the degree of control over sectoral change overestimated.

Health (or economics) demands method:

This method asks what number and kinds of health services people will actually use at the anticipated monetary and other coat of obtaining these services. Current health services utilization rates are a good measure of athe met demand (also termed the satisfied demand or effective demand) for halth services, and the planner may also wantto takeinto account the unmet demand for services, given certain assumption about their cost and accessibility.

It is chiefly applicable to private sector planning and to countries whose government polices are more concerned with anticipating then with activity shaping future sectoral development and in which there are no large inequalities in access to care.

The manpower/population ratio method:

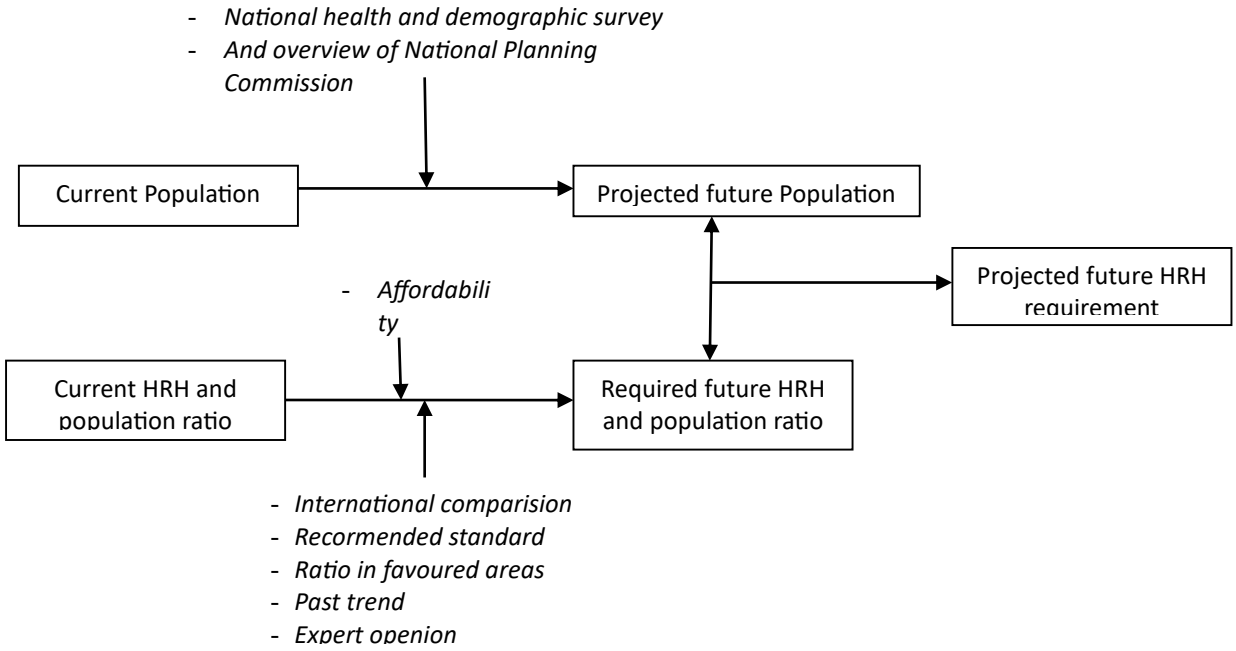


Fig. Requirement projection by the HRH/Population methods

This method uses an observed or desired manpower/ population ratio as the basis for deriving manpower requirement. This method has been a favorite method in many countries, primarily because of its simplicity and easy to carry out. Yet it is difficult to determine the appropriate population to health worker ratio for each coutry's situation and this method usually gives aggregate figures. The appropriate population to health workers ratio depends on the level of economic development and type of health care system management in each country.

Analysis of manpower situation (Public and Private Sectors)

Health manpower distributed in public or government and private sector. Private sectors are much more costly than public sector. The distribution of health manpower is unequally or mis and mal distribution in between public and private sector. The centralization of health manpower produce problem of health scarcity basically in rural areas

The number of current specialists and their distribution between the public and private sector has been estimated from information available in HuRDIS and the professional registers. There is clearly some uncertainty as to the total number of specialists who are still practicing and it has been suggested that some of those working in the public sector may also be engaged in some private sector activity.

Table 1. Summary of Distribution and Deployment of Specialists

Number of Different Specialties	30
Number of Specialists	1,544
Number of Specialists in public sector	363 (23.5% of total)
Number of Specialists in private sector	1181 (76.5% of total)
Number requiring hospital beds	1,227 (253 in public sector)

(Source Strategic plan of HRH)

The distribution of registration addresses and the predominant location of tertiary hospitals in Kathmandu indicate that the great majority of specialists are located in Kathmandu with a small number in two or three of the major towns and with some public sector specialists located in zonal and regional hospitals. Nevertheless, it is clear that the availability of specialist services is predominantly in Kathmandu.

The level of required specialist staffing is dependent on a number of variables. These are:

- Intensity of bed utilization
- Facilities and technology
- Bed turnover rates
- Population, demography and epidemiology
- Availability of support staff
- Types of medical intervention employed
- Availability of funds
- Health priorities

The situation will vary from speciality to speciality and will depend, over time, on the health priorities in the public sector. While this will also have some impact on the private sector, growth in the sector is driven more by the willingness and ability of the population to pay for particular medical interventions. At this time there are no specialists in district hospitals. All public sector specialists are in zonal, regional or central hospitals, although predominantly in the central and tertiary hospitals.

Region wise specialist distribution

			Development Region-wise Distribution				
			ER	**CR**	**WR**	**MWR**	**FWR**
Government Sector	Bir	61		61			
	Kanti	25		25			
	Teku	5		5			
	Maternity	50		50			
	Mental	10		10			
	Others*	128	8	112		4	4
	TUTH	179		179			
	BPKHIS	108	108				
	GRH	33			33		
	Zonal	180	28	111	18	18	5
	District	-					
Non Governmental**		58	6	30	12	5	5
Private MC***		200		185	7	8	
Private NH		30		30			
Others	Patan	40		40			
	Community	12		4	8		
	Total	**1119**	**150**	**842**	**78**	**35**	**14**

Region wise specialist and population distribution

Region	**Population**	**Sp. Doc**	**Pop/Sp. Doc**
ER	5.344.476	150	76349
CR	8.631.629	842	10251
WR	2.191.330	78	28093
MWR	3.012.975	35	86085
FWR	2.191.330	14	156523
	21,371,740	**1119**	**20569**

Critical analysis of the existing policy, private public mix in production of HRH for Nepal:

Public Government provides public services, facilitators and long term owners

Private for profit innovation, efficacy and finance

Partner ship can be defined as the situation of parties working together as recognized equals, unless otherwise stated, with shared resources, around a common vision, Purpose and mechanism.

Rationale for PPP

- To improve from status quo needed extra resources, expertise and efficiency
- Government cannot do every thing
- Partnership with private is desirable

Benefits of PPP

- Govt.-free up public resources
- Private-business promotion
- Donor-stretching the dollar in aid
- Civil society- quality service at competitive price

Concepts of Public Private Partnership

- The term public private partnership in health is used to refer any on going relationship between public and private sector.
- Partnership is desirable and possible to achieve common objectives of providing health services to the needy people.
- In order to do so, both public and private sector need to, i) share to authority and responsibility and ii) share the risk, resources and benefits.
- This can be done through contractual arrangements, though semi-formal understanding may well be defined within the domain of partnership in health.
- The term capacity is important in this aspect. It should aimed at building capacity to govern, generating private resources to compliment public resources and initiating reform in the public sector in a transparent, accountable and result oriented manner. People and their representative organizations should lie in the centre of this partnership framework.
- The Public Private Partner-ship policy for local organizations 2060BS that is released by Ministry of Local Development and which could be a reference document for MOH&P as well envisioned eight kinds of partnership mechanisms for implementation of programme and projects as follows:
    - i) Service contracts
    - ii) Management contracts
    - iii) Concession
    - iv) Community led partnership
    - v) Build, own, operate and transfer
    - vi) Operation and maintenance
    - vii) Lease
    - viii) Others within the prevailing acts and regulations

Partnership provides a method of involving private health care providers in delivering public health care services and vehicle for coordinating with non- government actors for meeting health objectives as defined in NHSP-IP.

Classification of Public Private Partnership

In developing policies regarding private sector and guidelines for operational partnership

between public and private sector, the following classification would be appropriate and thus recommended:

- Private for profit facilities(private hospitals, medical colleges, human resource development organizations, diagnostic institutions, poly clinics and other for profit-institutions)
- Private not- for- profit organizations (NGOs, trusts and other institutions without any profit- making objectives)
- Private- for- profit individual practitioners (doctors, paramedics etc.)
- Public Private Partnerships should be enlarged to include partnership between public sector and all the above sectors through policies operational guidelines of partnership for each of the above sector would be different.

Public-NGO Partnerships

- Partnership between public sector and NGO is bought to be strengthened through the formalization of NGO Co-ordination Council (NGOCC) and establishing committees or work groups for specific programme areas to co-ordinate the work of government, donor and I/NGO groups.
- The reform strategy also seeks to establish a district level Health Co-coordinating Committees to provide a co-ordination mechanism between government services and private/NGO supporters and private providers of EHCS related services in each district. It also envisions developing well-defined financial mechanism.
- Public-Private Partnerships
- Highly specialized health services are sought to be provisioned through the modality of PPP.
- Guidelines and criteria is planned is to be developed to guide planning and development of services to outline modalities for specific role of Government of Nepal and the private sector including local bodies.
- Other plans are, to ensure private rural providers ' services to a specified standard, documentation of working models to explore possibilities of private sector specialists to work and support in the public facilities and review of existing practice of drug and pharmaceuticals trade.
- Strategies include assessment of current regulatory frame work and similar to public-NGO partnership, establishing coordination bodies at central and district level.
- The key indicator to measure the operationalization of these plans in number of service delivery agreements with the private sector and NGOs by the end of fiscal year 2006/7.

A typology of HRH production in Nepal through PPP

	HRH training areas	**Public**	**private not for profit (i.e.NGOs)**	**private for profit facilities**
1	Family Planning	FHD, Cheetrapati clinic, NHTC	ADRA Nepal, FPAN, Marie stops	Private Hospital/Nursing Homes Medical Colleges
2	Safe Motherhood/neo natal health	Central, regional and Zonal level hospitals	UMN hospitals: SCF network, UMN,FPAN and other INGOs.	Private Hospital/Nursing Homes Medical Colleges
3	Child Health (IMCI), EPI vit A & nutrition Prog.	Hospitals and HP/SHP MCHWs, FCHV	Donar organizations, Save Children network, plan International, FPAN, UMN,NTAG, NEPAS	Private Hospital/Nursing Homes Colleges
4	Tuberculosis, leprosy & other vector burn disease	Hospital at Central, Region and District Level	UMN, INGOs such as INF, NGOs, TB, NATA	
7	Blood Collection, storage/supply	15 hospitals and medical colleges	Nepal Red Cross	
8	Production & skill enhancement of HRH	NHTC,RHTC,hospitals,Medical colleges, Technical schools	Medical colleges, Technical schools	Medical colleges, Technical schools

The above typology may not be complete and need to be further refined and updated, but it proved a basic framework for developing partnership for provision of HRH production in an integrated way, which is a major thrust of health sector reform strategy.

Opportunities and Challenges

- PPP in health sector is yet to be materialized.
- A good public private partnership exists with the Nepal Pediatric Society (NEPAS), which provides training in support of the CB-IMCI programme.
- PPP resources could similarly be used to contract with NGOs to provide Safer Motherhood Training; NSI (Nick Simon Institute) is one possibility.
- There are other examples, particularly for community level technical support/ monitoring/supervision (Nepal Technical Assistance group), clinical follow-up (Nepal Fertility Care Centre), etc.
- Additionally, scaling up the coverage for the HIV/AIDS interventions may be expedited through collaboration with private sector facilities, including NGOs, which are well positioned to provide services, such as STI management and VCT.
- Good lessons learned from the pilot projects should scaled up. The NGO experience in ASRH programme implemented through RHIYA and management of Lamjung Hospital by the local NGOs is some of the good examples.

Interrelationship between health service system and education system:

Regarding government colleges, there is a regular system of HR production on the basis of demand from MOHP and their short term and long term plan of the university. Graduate and mastered are supposed as a high level HRH for health

Similarly few of Institute are producing HA, SN, Pharmacy, diploma, physiotherapy etc diploma these are supposed middle level HRH.

Gross root level: ANM, AHW, VHW, MCHW are supposed as a gross root level HRH. The educational institution produce the HRH under the guidance of MoE in coordination with MOHP The major are

CTEVT

The Council for Technical Education and Vocational Training (CTEVT) is the policy formulation and coordinating body for Technical Education and Vocational Training (TEVT) programs in Nepal, which was constituted in 1989 (2045 BS). The CTEVT is a national autonomous body committed to the growth and development of basic and middle level workforce for the kingdom of Nepal. It has an assembly with 24 members and a governing board of seven members. The Assembly and the Council are both chaired by Minister of Education. The Council has a full time Vice-Chairman and a Member-Secretary appointed by government. Secretariat is located at Sanothimi, Bhaktapur.

Mission

CTEVT formulates policies, ensures quality control, coordinates all the technical education and vocational training (TEVT) related stakeholders, provides services to facilitate technical education and vocational training programs to prepare and facilitate in the preparation of basic and middle level skilled human resources for economic development throughout the kingdom.

Objectives

The primary objective of CTEVT is to facilitate the growth and development of basic and middle level skilled workers who can then develop their own enterprises or find employment in either the private or public sector.

The programs and activities of CTEVT are designed to fulfill the following objectives:

- To develop policy, coordinate programs and to provide the necessary technical services and support to both public and private training institutions so that training is need-based, effective and as efficient as possible.
- To encourage the growth of training providers through services and support which will help them to be developed into a reputed institute for producing skilled work force.
- To increase the number of qualitative trainees, especially women and others representing underprivileged groups, from both government as well as private training programs. Such trained work force is expected to meet the demand of the nation and at the same time compete in the foreign labor market.
- To ensure the quality of middle and basic level TEVT training, so that it generates self-employment, wage employment, foreign employment and ultimately improves the quality of life.
- To design a nation- wide, labor market information system for providing career counseling and guidance so that problems of educated unemployment can be reduced.

- To implement a continuous nation wide needs assessment to ensure that all the training programs in the country are need-based and there is highly probability that the trained workforce is absorbed into the labor market.
- To make the graduates well aquatinted with the real work environment by ensuring the involvement of the business and industry in the TEVT sector, basically through the apprenticeship training.
- To make the graduates well accepted by the business and industry.

Divisions of CTEVT to produce manpower

Under the direction of the Member-Secretary there are ten divisions through which CTEVT's activities are carried out.

Research and Information Division conducts follow-up, tracer, feasibility and needs assessment studies, and other research activities related to technical education and vocational training.

Planning and Administrative Division is responsible for all physical property, fiscal and personnel matters relating to CTEVT and its institutions.

- Technical Division is responsible for regular supervision of institutional programs.
- Curriculum Development Division has the responsibility of approving all curricula to be used within the TEVT system.
- Examination Division has the primary responsibility of ensuring quality control for TEVT.
- Skill Testing Division has the responsibility of certifying the skill level of individuals within the technical manpower sector regardless of whether they have been trained formally or not.
- Accreditation division has responsibility of ensuring quality control of private technical Institutions. nearly 180 private training institutions are given temporary affiliation to run the training programs to produce basic and middle level human resource according to the need of the country.
- Polytechnic Division is responsible for all polytechnics, which are established under CTEVT. The division will coordinate with similar type of polytechnic institutes run under universities.
- Vocational Training and Community Development Divisionis responsible for the activities of all VTCD institutions running under CTEVT and coordinates with similar type of private institutions. This division has planned to run 75 VTCDs in each of the 75 districts.

CTEVT Institutions

- Training Institute for Technical Instruction (TITI)
- Vocational Training and Community Development (VTCD)
- Rural Training Centre (RTC), Tanahun and RTC, Lamjung
- Polytechnics
- CTEVT Technical Schools
- Private Institutions

Tribhuvan University

Set up in 1959, Tribhuvan University (TU) is a pioneering institution of higher education in Nepal.

Objective of TU

- To produce skilled manpower essential for the overall development of Nepal;
- To preserve and develop historical and cultural heritage of the nation;
- To accumulate, advance and disseminate knowledge; and
- To encourage and promote research in arts, science, medicine, engineering, agriculture, management and education as well as in the vocational fields.

Academic program of TU

During its 48 years long journey, the state owned university has expanded its programs in different disciplines. There are five technical institutes and four general faculties, which offer 300 courses at certificate, 1079 courses at bachelors and 1000 courses at masters levels. Currently, the total courses offered by the university number more than 2400. Both technical institutes and general faculties offer Ph.D. programs in different disciplines. In producing of HRH the IOM is the major institute of TU

Institute of Medicine

Majority of courses, ranging from certificate to post-graduate levels, are offered at Maharajgunj campus of the Institute. Maharajgunj campus conducts three certificate levels, six bachelor's levels (MBBS, BPH, BMLT, B.Sc. RT, B. Optom., Nursing and B. Pharma) and 16 post-graduate levels (MD in Internal Medicine, Pediatrics, Gynecology and Obstetrics, Anesthesia, Psychiatry, Pathology, General Practice, Radiology, Ophthalmology and Dermatology and MS in General Surgery, ENT & Head and Neck surgery, Orthopedics, M. Phil in Clinical Psychology and Master in Public Health, Master in nursing and M.D. Human Anatomy, M.D. Physiology, M.D. Pharmacology, M.Sc. Clinical Biochemistry, Master in Medical Laboratory Technology) Courses. In addition, M.Sc. courses in Pediatrics, Gynaecology and Obstetrics, Surgery, Otorihinolaryngology and Radiology have also been conducted in the academic session of 2003-2004.

Critique: un-planned production, quarry on quality, variation on even course curriculum, and duration, quality of teachers, numbers of teacher. Community field and medical hospital/ institutes for practice. Entry and final examination system.

Problem: What do you mean by mismatch while analyzing manpower situation. Also analysis the gap between demand and supply.

Manpower is the critical resource in a labour intensive industry like health. People wants health service not the manpower is the sub-system of the country's health system. Nor the manpower be stored nor discarded. In some countries there is acute manpower shortage where as on the other hand there is surplus of manpower. Now the term health manpower is longer in use. Human resource, workforce are the commonly used terms instead. Human resource is not a commodity whose production can be left to the imperfect functioning of laissez-faire market mechanism. There were two traditional types of manpower on past times. The first, some socialist countries used to focus on the service need rather than the capacity of the health institutions or medical school. The second, the western countries are planning by episodic, crisis oriented and often and often limited in scope.

Analyzing Mismatch Problem in Human Resources Planning

Mismatch of human resource and recruit standard provided actual horizon for the future planning. Mismatch of supply and demand of Human resource planning is enabling to provide the health service as required of organizational goal and objective standard

This is the important step of human resource planning process. After projection of future projection of future supply of manpower needs, the working group compares between the two. Such comparison will revel mismatches between supply and requirements. There may be too few or too many of various categories of staff, needed skill may be lacking, productivity may be low, and there may be a geographical mal-distribution of staff other human resource problems will also be identified at this stage. Mismatch problems can be of a number of different types, distribution, skills and or productivity. Manpower problems are often country specific and their solution should also be adopted to suit specific national circumstances.

Mismatch is difference of recruit staff for the post and qualification of the post in terms of knowledge , skills, geographical distribution, productivity, efficiency and over staffing and understaffing.

If overstaffing is expected, the main options are transferring the extra employees, not replacing individuals who quit, encouraging early retirements and layoffs. Downsizing should be done in consultation with the employees union to avoid employee resistance for change in job size. If there is shortage of human resources in the organization, there is necessity for planning about the retention of existing employees by improving the quality of work life. Such retention policy includes providing training opportunities, career ladder, bonus and other human incentives.

Hence, while solving mismatches, the planner should think about the nature of mismatches, their constraints, obstacles, consequences and distribution. The necessary corrective action should be taken by analyzing cost and benefit.

Gap between Demand and Supply

Human resources are the crucial core of a health system, but they have been a neglected component of health-system development. The demands on health systems on health systems have escalated in low income countries. Human resources are in very short supply in health systems in low and middle income countries compared with high income countries or with the skill requirements of a minimum package of health interventions. Equally serious concerns exist about the quality and productivity of the health workforce in low income countries. One of the most important and difficult aspects of health in human resource planning is the estimation of demand.

In process of gap analysis of HRH, Supply is indirectly associated to demand ie. When supply of HRH is high than automatically the demand low in market but

Demand is directly associated with Supply ie. The demand of HRH is high than in production function the supply also high where as demand is low but supply may not be low. This is the major issue that always influences the planning and production of health manpower. Such gap increases the shortage in manpower of surplus of manpower. Both

critical condition of HRH highly suffered from brain drain. If there is equilibrium of demand and supply than the planning and production of manpower is sustainable.

But in developing countries there is high problem of mismatch, mis and mal distribution of health manpower because of brain drain, low salary, security problem, geographical distribution. Such condition create problem actual manpower planning so there is inequilibrium of manpower supply and demand

Demand is a measure of quantities of goods or services that buyers take at alternative prices. Hence demand in health care, in a more restrictive and technical sense, refers to the sum of the amounts of the various types of health services that the population of a given area will seek and has the means to purchase at the prevailing prices within a given time period. If the demand exceeds supply, the price will increase and vice versa until equilibrium is established. The demand can be estimated by the following approaches.

a. Health need approach
b. Programmatic approach
c. Economic demand Approach
d. Normative approach

Among available strategies to address the problems, expansion of the numbers of doctors and nurse through training is highly constrained. This is a difficult issue involving the interplay of multiple factors and forces.

Here are the some factors that affect demand which ultimately affect the gap between demand supplies.

1. Demographic situation
2. Economic Development
3. Social and Cultural milieu
4. Health status of the people
5. Accessibility of services
6. Resource availability
7. Resource productivity
8. Health care technology

Supply usually refers to the availability and characteristics of resources or services at a given time according to specified assumptions about productions, losses, and use. Supply is affected by the following situation.

- Current supply: Current shock of qualified health manpower
- Future increments: New graduates, employee transferred from the other occupations, immigrants
- Projected losses: Retirement, death, emigration, transfer to other occupations.

While analyzing the manpower situation, the estimation demand and supply should be taken as simultaneously so that the major gap can be ruled out. The following are the major gaps that are facing by our country itself.

1. Past planning efforts were of short term vision, crisis oriented, lack of accurate data regarding human resource.
2. Rapid growth of health industry, certain categories of health work force have become, as it were, international commodities that are moulded in an

educational pattern for the most part designed to serve the needs of industrialized countries.

3. Due to high population growth, rapid socio-economic development and rising social expectation has escalated the demand that hasn't been satiated with the scarce supply.
4. Demand for the poor and the marginalized is less due to ignorance. More supply is concentrated on the few segments of the people that resides on the well facilitated areas.
5. The co-ordination mechanism between health care delivery and the health manpower development is inadequate.
6. Centralization on health manpower planning.
7. Lack of synchrony between health policy and HRH Policies
8. Past HRH plan were highly restricted on producing medical doctors. Other health professionals were neglected.
9. Supply is done according to the sanctioned post basis but not with the health service demand basis.
10. Distribution problems : Geographical, occupational, institutional and public private sectors.
11. Changes in the foci of Health institutions like IOM, CTEVT,BPKIHS,NHTC
12. Growth of private sector.

There is a consensus that despite their importance human resources have been a neglected component of health-system development in low income countries. The pool of health workers in low and middle income countries has been depleted and that the situation may be getting worse. One reason is migration to greener pastures. Poor working condition and remuneration serve a additional factors that push health workers out of the public sector, the health sector, or the country. However, The HR strategic plan makes proposals for future staff requirements and supply and their allocation on the best available information on the future intensions of the Ministry through its emerging national health plan.

Preventive-curative promotive and rehabilitative HRH

How do you differentiate distribution analysis from preventive curative manpower analysis?

Manpower in general means persons who have received, or are receiving, education and training for specific occupations. All the personnel serving to civil and public services (or non- health) are the manpower's. However, preventive – curative manpower differ from them with the basic concept that they are more technical in the nature o their jobs. The higher use of science and technology (Special in health) obviously makes the nature of their job descriptions different from public service personnel despite the consideration that their areas of works are different and cannot be just compared.

The term health manpower includes:

1. Those health workers already working in the field of health services.
2. Potential health workers, i.e. those who have the requisite training or experience to engage in a particular health occupation but are not at the present doing so; and
3. Prospective health workers, i.e. those who are receiving the education and training that will prepare them for employment in the health sector.

Preventive and promotive health manpower are taking special education and training for prevention and promotion of health. Curative health manpower are taking special education and training on clinical aspects of health.

Global distribution of health manpower :
Where are the world's health section .

Continent	Percentage of world's population	Global stock of doctors/ nurses and midwives
Asia	50%	30%
Europe and North America	20%	50% of physicians and 60% of nurses.

(Source : Human Resource for Health; Harvard University Press,2004,29)

Health manpower situation of Nepal

Occupations	**Supply in 2003**
Medical specialist	1,544
Medical officer	1,186
Nurse(certificate)	1,585
ANM	1,820
WHV/MCHW	5,221
AAW/AHW	4,334
Health Asst./ Kaviraj/ Hakim	1,558

(Source: Nepal strategic, Plan for Human Resources for Health 2003-2017, Ministry of the Health and Population, 2003)

The total numbers of staff (34,942) in population in the population is low (One Health staff to 694 people)

Health Manpower distribution through preventive curative manpower distribution.

1. *Matching technology:* In health sector, the manpower is labour – intensive, while in public (non- health) sector it is capital- intensive. But the contrast lies where developed countries use technologies that are capital- intensive, even in the health sector. So, the focus of the global for the developing countries lies in the adoption of *intermediate technology,* which is based neither completely on capital nor completely on labour and is called matching tehnology.
   While adopting matching technology principle, the governments fighting against misdistribution of the health workers cannot deploy them despite they are production in numbers every year. This is among the ones contributing directly or indirectly to distribution of health worker in the remote area.

2. *Opportunity cost:* the cost of production of a clinician can produce a couple of medium level health manpower, Nurses and Health assistant by simple calculation, the higher the production of manpower the even the distribution. So investment in the production of middle level health manpower can be expected to minimize the maldistribution of heath workers, however such assumptions of public service personnel can not be made.
3.
4. *Severity of brain drain:* the severity of brain drain has paralyzed the health and economic section of developing countries. Health manpower are easily employed in the West with

a handsome salary. This pull factor has been recognized as a strong force and has left the developing countries on understaffing despite the huge investments of the state governments in the production and overstaffing in the developing countries. Such trend and opportunities narrowed for public service personnel and hence does not affect their distributions directly.

5. *Utilization of manpower:* Under utilization of the health manpower within the country is to be lesser than that of non- health manpower. So, we may say that the development of the health personnel has helped in some ways in the correction of maldistribution of health workers but it is important to note the crowding of the health workers in the cities and to again increasing the gap in the distribution of health workers in the urban and rural setting.

6. *Location decision:* Both health and non- health professionals show location decision with means the place of upbringing and the place of professionals education are positively correctly with where health professionals choose to establish themselves. For example, married doctor may leave their area of work for the sake of their children's education when they reach school age. The tendency of location decision has been found higher in health sector as compared non- health sector and the issues of personnel distribution go accordingly.

7. *Challenges in internal recruitment:* Internal recruitment of health personnel possess some thereat to the management. Job specification, professional isolation and the infrastructure development are some of the serious issues taken into consideration during the process of internal recruitment while the management of public services find it more comfortable for the redistribution of its staffs.

<u>Some factors that facilities the correction in the distribution of health manpower.</u>

1. *Incentives and coercion:* To achieve the desired distribution of health manpower even to the underserved areas, government has adopt three major approaches, namely incentives, coercion and combined approach. Recently, Ministry of Health and Population (MOHP) has adopted the coercion approach for medical graduates who complete their graduation under its scholarship scheme i.e. they are bound to work for 2 years in government hospitals after their graduation this has been a trial however it is expected to come up with some good data on thee distribution of health manpower. However, for that of the non- health personnel, these opportunities are narrowed or even not practiced.
2. *Reducing professional Isolation:* To reduce the feeling of isolation of those working in remote areas, government has been assigning physicians in pairs or even in teams with other professionals, instead of singly.
3. *Flexibility in age barrier:* the age barrier for health sector is flexible in Nepal. Any health personnel can join the government service upto the age of 45 (as per the existing rules and regulation)
4. *Budget allocation:* Health sector alone receives high % of annual government budged. Besides government budged, a huge flow of found from the bilateral and multilateral agencies have enriched different health programs. So there is more opportunity for the health staffs for benefits and training. Repeated refresher training has been recognized as a motivation factor for health workers. These opportunities are limited for the non- health workers.

Deployment of general manpower or non-health manpower or public service personnel needs a small investment of capital but it is quit different for the health personnel deployment. The first step in the deployment of health

Personnel are to invest a huge capital developing the health infrastructure, although advocacy is being made focusing on intermediate technology. China, Iran, Turkey have experimented with assigning two or more physicians to the same health post (Health Manpower Planning; principles methods, issues WHO 1978, page 167). Planners and policy makers of Nepal should not be copying it nor blindly implementing the same. The deep rooted madistributon of health personnel cannot be uprooted overnight unless and until social and economic development has been made. Development of the rural sector and reduction in the gap between the rural and urban sector are some of the important issue s that had been proven essential worldwide to minimize the maldistribution. How ever the distribution of public service personnel is not that much difficult for it can be minimized with smaller investments

Q. What is the mechanism of the health manpower in Nepal? Describe the same of National Planning Agency and Ministry of Health and Population.

The greatest resources of the world are the humans, without whom nothing could ever be resource; of what value, for instance, would gold or silver or other natural endowments be if there were no humans?

Resources may by neglect, depleted by consumption, destroyed by misuse or enhanced by development intervention. The human being is indeed the resource of all resources. No one therefore would ever think of wasting, depleting or destroying this prime source.

An overview of Nepal's Health Sectors
-Among largest employers
- Approximately 35,000 staff in the health sector growing to 72,000 in 2017
- 25,000 in the MoHP IN 2006
- 75percent of the annual MOH budget is salaries and benefits
- Ratio skilled to unskilled or semi-skilled: 30percent to 70percent
- Substantial under representation of middle level staff and non-medical university graduates
- Females make up 25percent of the total
- Large scale overpopulation of medical officers and specialists
- 70percent of medical specialists are in the private sector
- 29percent of current staff will retire or reach retirement age in next 14years

Mechanism of human resources for health indicates the following three components:

- Planning of human resource for health
- Development of health resource for health
- Use and retention of human resource for health

But, For the shake of convenience human resources mechanism is being described here under two headings:

- Mechanism of human resources planning and development
- Mechanism of Use and retention of Human resources for health

A. Mechanism of Human resources planning and development

a. The type and number of personnel needed for health services delivery through the Ministry of Health is based on "1996 Human Resources for Health Master Plan" and "Strategic plan of human resource for health 1997-2017".

b. The scope of the "Human Resources for Health Master Plan" has been gradually broadened to include the INGO, NGO and private sector but not completed yet. The "Master Plan" will maximize input from lower level increase sensitively to local needs, and effectively link human resource for health planning to the overall health planning framework.
c. Highest priority has been given to decentralized human resources for health planning within the broad national guideline of the "Human Resource for Health Master Plan".
d. Ministry of Health is adopting the "sanctioned post" based methodology and being replaced by service target approach. Service target approach specifies the level of services that should be provided. The target established by the SLTHP national targets adopted by individual MOH programs and Governments Bilateral and Multilateral Commitments will be used in employing the service target approach to project human resources for health requirements combination of
   - Work load based projections
   - Population ratios for community based health workers adjusted for geographical area, and
   - Standard staffing patterns adjusted for geographical area will be used.
e. Production of clinical, technical and supportive health personnel for all system of medicine has based on their projected need. But, seems to be on the basis capacity of training institutions.
f. Norms, standard sand criteria to assure quality education and training of health personnel has been developed for all system of medicine, but is dominated allopathic system.
g. To ensure regional and geographical balance for candidates from remote area and secure gender eqity in enrollment subsidies and quota has been provided cover pre-service education cost for training of basic and mid level health personnel.
   Example: ANM training in Karnali Technical School, ANM training in Technical School, Diploma level programs in School of Health Science, Chitwan BPKIHS, Dharan; etc
h. Ministry of Health has terminated its involvement, in pre-service training refocusing its attention on in-service training, refresher courses in continuous education.

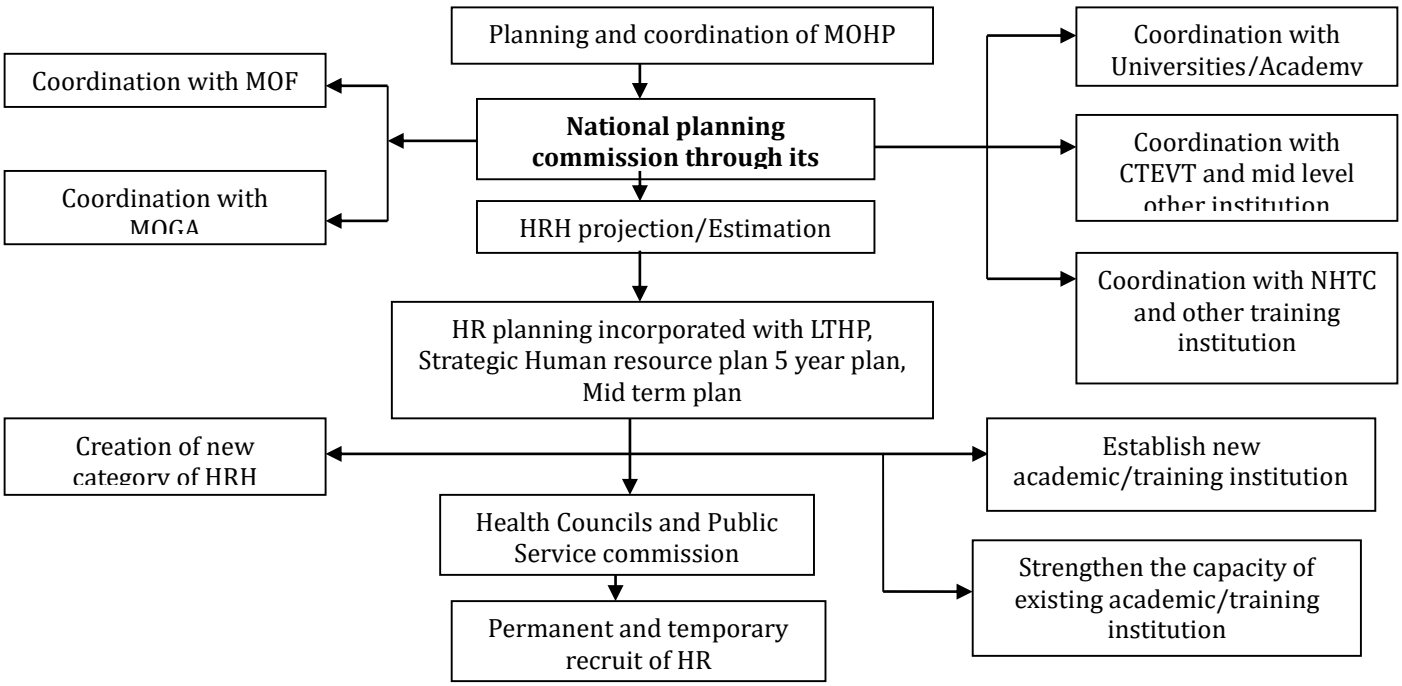
B. Mechanism of Use and retention of Human resources for health

a. There are strict and well documented rules and a regulation regarding recruitment, selection, placements, transfer and deputation of staffs but aspect of implementation is miserable and frustrating.
b. Clear and explicit job description based on standards and guidelines by type health facility has been developed and implemented for all level of technical and support staffs.
c. A system for integrated supportive supervision of technical and support personnel at different levels have been developed is yet to operationalized.
d. One of the objectives of HRD business plan of MoHP, Nepal states that, increases coverage in staff retention to ensure adequate deliver of essential health care services.

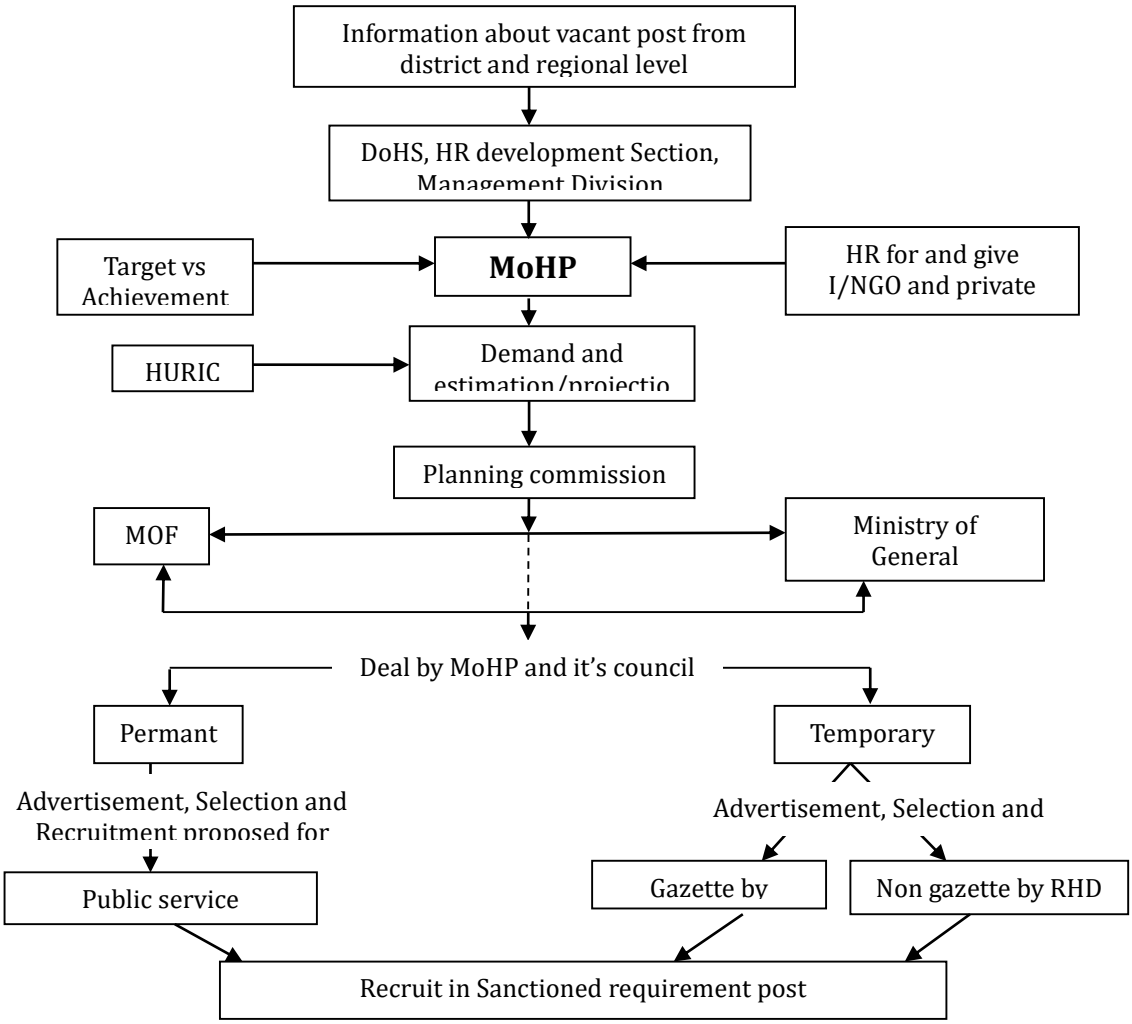
e. Old and new challenges threaten the human resources responsible for health care planning and delivery in public sector funded national health systems. Among the old challenges, low pay and staff motivation, unequal and inequitable distribution of the health work force, and poor staff performance and accountability remains key obstacles to health sector development. Among the new challenges, qualified staffs move more freely among countries, and even countries, that can train and produce large number of health workers, are unable to retain them.

f. The absenteeism of health staff throughout rural and remote Nepal continues to be significant issue despite the wide range of government initiatives designed to address problems of medical work force retention. Generally, the issue of medical work force retention has received significantly less attention than recruitment.

Human resource mechanism of national planning commission



Human resource mechanism of Ministry of Health and Population



To sum up, the importance of human resource management to the success of heath sector has often been overlooked in the case of Nepal. Forecasting, planning, development, mobilization and retention of health purpose in the sector are the keys to attain National Health Policy. Focusing on change agenda in the course of health sector reform may challenge the ways that the professional and others staffs are employed and deployed. The key to achieving effective human resource is to recognize that it has to be an integral element of oval all planning and management of the delivery of health service. The implement of such plan solely depends on the degree of willingness on the part of health executives together with political commitments, meant for action.

Q. How do you describe the problems at the central level in the process of manpower development?

Manpower development embraces three parts-planning, production and management. It is viewed as a means to ensure appropriate numbers, type, and distribution of technically component and socially to all people especially in rural areas.

Reshaping the health manpower complex so that it is responsive to nation's requirements for health care is essentially a triple process involving

Planning (is design of manpower mixes and utilization pattern for better future of health service. Planning authorities at NPC and MoH perform this function in Nepal.)
Production (is concerned with education and training of health labor force. It is under control of education sector guided by health circumstances) and
Management (is related with recruitment, use, motivation, supervision, monitoring, evaluation, and other functions relating labor force. Service providing agencies do this)

All three functions harmoniously geared to achieving a single goal of providing health services to the entire population. Unfortunately, more often than not this goal becomes lost in the mad scramble of institutions and professional groups to perpetuate themselves and in excessive preoccupation with input rather than output, with the efficiency of component parts rather than the effectiveness of the whole.

Despite lot of improvement have been made in the health status of Nepalese people, the gains are almost entirely attributable to a reduction in mortality through the mass application of public health measures and are of little significance if most individuals cannot hope to receive a reasonable amount of health care during the additional years of survival. The reason for this failure may found in the anomalies in present health care and health manpower development.

A few of the problems at the central level in the process of manpower development are discussed in brief as under:

1. **Planning**:

HRH planning is a highly centralized process. HR planning is not linked to the overall health planning framework. Frequent policy changes affecting health personnel are introduced without assessing their impact on HRH planning and development. There is no effective mechanism for HRH planning within the Health Institutions and Manpower Development Division (HIMDD) of DHS, the responsible unit within the MoH. The responsible and authorities of HIMDD and ministry of health's national health training centre are not clearly defined in relation to planning and development of HRH.

Gender mainstreaming:

Gender sensitive policies and regulations are also inadequate.

2. Production:

A. *Pre-service education, in service training including career development:* Concentration of private training institutions in urban areas and in the Terai lacks the opportunities for rural population. In-service and continuing education continuous to employ a vertical program approach, resulting in health workers frequently out-of-station attending programmatic training. In-service training is not linked to career advancement opportunities. There are no mechanisms for in-service "training blocks" which over a number of years would lead to career advancement for basic level health workers. Under the current system, basic level health workers retire in the post of recruitment.

Similarly information for continuing and higher education is not disseminated in atimely manner particularly to health personnel serving in rural areas. Moreever there is lack of transperancy in the selection process especially when it involves selection process especially when it involves study or observation visits in foreign countries.

B. ***Quality:*** Limited resources are often used to produce categories of qualified personnel for which there is limited use. Cadres of personnel are trained without due consideration to their cost effectiveness. There is mushrooming of training institutions. The new training institutions often are established without consideration of the health sector's HRH requirements.

   Nepal government has developed standards, criteria and guidelines for the establishment and operation of medical schools and institutions for the training of health personnel do not address issues of HRH needs, regional/geographic balance, feasibility and sustainability. Nor do they address the financial and human resources implications for existing health sector priorities, or their affect in existing medical schools and training institutions. Moreever, there is an absence of legal provisions to enforce compliance with the standards, criteria and guidelines that do exist.

C. *Information for manpower development:* HIMDDs human resources information system (HuRDIS) is not effectively linked to training and deployment of health personnel.

3. Management:

a. *Staffing pattern :* HRH requirement are determined by staffing norms and numbers of sanctioned posts. Neither approach accurately reflects actual need. The supply of health personnel doesn't correspond to need. There is a persistent mismatch between demand and supply across a broad array of personnel categories, as well as between the skills personnel have been taught and those required for the positions they fill.

Assessment of need for health personnel is not adequate based consideration of the morbidity patterns of the specific locations in which personnel are to serve. Moreover, assessment of need does not address service demands of the locations nor attrition rates.

b. *Remuneration and incentive policy:* Equitable remuneration and performance based incentive policy is lacking, A transport performance based and result oriented incentive system with positive and negative incentives that also address the "push and pull factors" for filling the remote postings is also inadequate. This is one of the major issues today causing absence of health personnel at the rural areas and is also responsible for the brain drain.

c. *Lack of coordination:* There is lack of effective co-ordination, consultation and collaboration among the numerous comities and individual ministries, organizations and agencies involved in planning commission; the ministry of education, universities; NGOs; the private sector; donors, etc. Coordination between HIMDD and NHTC is limited.

d. *Monitoring and evaluation:* There is a lack of established system for integrated supportive supervision of technical and support personnel at central, regional, district level and below. Similarly performance based evaluation system is not at all functional.

Thus in gist we can say, since the health industry is essentiality labor intensive, manpower constitutes a critical component. This being so, one of the greatest challenges in the health field today is that of managing this manpower in a way that will make it less costly but yet fully capable of meeting what is a stated goal in most societies, the development of a more accessible, more equitable, more effective health care delivery system. This task involves more than a mere focusing on numbers, because manpower is a resource that can be used in municipality of ways and the manner in which it is employed is as important as, and sometimes more important than this numerical supply. However we can see significant problems in the area of health manpower development in Nepal as there is a need for decentralized of HRH planning, for development of human resource projections, establish effective coordination mechanism, need to establish in-service training blocks, establish integrated supportive system etc discussed as discussed earlier.

Problem: What are the existing problems faced by health sector in the process of manpower development at National planning level, Grass root level and Peripheral level as well.

The nature of Human Resource problems and issues that affect organization is the same world wide, what change are the magnitude and significance problem in different organization setting, For instance, one organization may have an adequate number of staff but suffer from poor industrial relations and low staff morale while another may have a shortage of staff but high levels of individual commimitement.

Manpower development is the most important and certainly the most expensive component of the health system. Therefore, improvement of human resources for health in any manner will result in significant gains in health in the efficiency of health care delivery.

General issues or problem: The broad general issues facing the health sector at planning level are.

a. Imbalance in the mix of staff and skills they represent, particularly in the light of a changing philosophy of health care provision. Unless there are some changes in policy, there will be an over supply of some categories of staff and undersupply of others.
b. Imbalance in the geographical distribution of staff with 40% of the sanction and filled post unmanned.
c. Inequalities between different types of health staff in their knowledge and skills and therefore, in the type and quality of services that can be made available.
d. Problems of job and role definition.
e. Inadequate supervision and management control without of date human resource management procedures and employment practices.
f. Limited and uncontrolled staff development and career management.
g. Severe shortage of trained management staff and management scientists.
h. Low level of individual and organizational productivity and performance for some categories of staff with little incentive to improve.

Operational issues: The general issues in the health sector described above are the product of combination of actions taken over a long-term/or failure to take necessary corrective

action over an extended period of time. They have occurred in Nepal, as in many other countries under the combined effects of.

a. Administrative processes not keeping pace with the growth and increasing complexity of the health service.
b. Lack of focus on increasing the general level of knowledge and skills within the service.
c. Concentration on increasing expansion and service volume rather than service quality.
d. A management infrastructure not developing in step with the health service not developing with the right orientation to create a health service focused on efficiency and quality.

Problems at peripheral level.

a. Constantly shortage of adequately trained and motivated health personnel at all level. Vacant post and unmanned posts
b. Mismatched between staff responsibilities and competency.
c. Does not follow rules and regulation regarding promotion, transfer and placement.
d. Lack of opportunity for academic training and opportunity to work in higher level
e. Peripheral staff does not get adequate supportive supervision and feedbacks from DHO/DPHO.
f. Lack of performance oriented reward and punishment system.
g. C-ordination problems health sector and other related sectors.
h. Politically influence mentoring system

Problem at Grass-root level:

a. Lack of incentives and rewards.
b. Frequently and long-term absent in the field activities.
c. Lack of supervision guidance and support from higher responsible authority.
d. Lack of required training and less access to information.
e. Late promotion and politically influence
f. No clear job description.
g. Poor HMIS system

Barrier to progress:

b. Units concerned with HR planning and management in the wrong organizational and hierarchical place.
c. HR technical skills not in place to provide technical directions.
d. Continuing traditional view of HR function-training and personnel.
e. Administration orientation of senior staff.
f. No reward for good management.
g. Limited scope or skill in HR policy.
h. Organizational performance assessment limited to clinical measures.
i. Political intervention with staff undetermining morale and incentive.
j. Lack of non-clinical graduate management staff and limited career opportunities.

Due to ill-defined job role, inadequate public health graduate management staff, lack of performance, measures activities, incentives, quality training of health personnel. Instructors' performance quality and career ladder opportunities problem are arising the in-effective management of manpower development.

So to address these issues, the health services as a whole will need to engage more aggregate with Human resource development, By HRD, in the sense used here and mean the development and integration of system, policies and practices in the recruitment, maintenance and development of work force to meet the goals of the MOH in particular this will mean a concerted and sustained effort to develop the functions of HRD planning, HR policy making, training, HR data collection, HR management and employee relation. All of these required a commitment of resources and leadership support beyond that which currently exists.

HRH Utilization

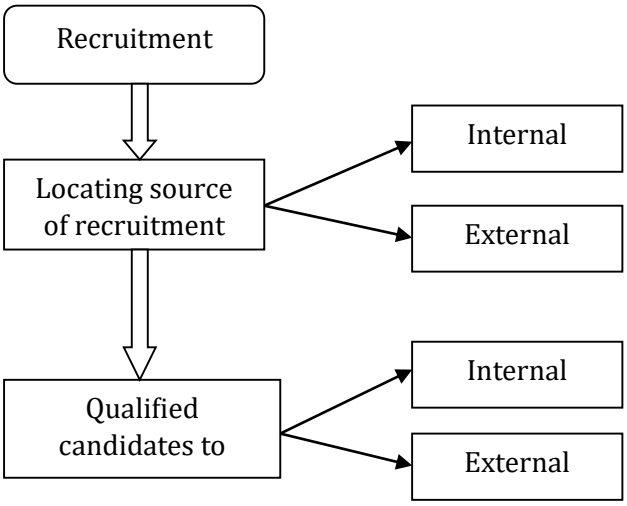
The concept of health personnel management/ Utilization

Recruitment procedure:

Recruitment is an important function in all organization. It brings together employer and employee. It is the first contact between them. Recruitment is an important part of the acquisition component of human resource management. It is the process of finding right people for right position at the right time.

According to DeCenzo and Robbins (2002), "Recruitment is the process of discovering potential job candidates"

The recruitment process consists of the following steps



Process of identifying the sources for prospective candidates and to stimulate them to apply for the jobs. The sources may be internal and external. But the policy should clarify the extent to which it will be emphasized internal and external sources.

External sources are Universities, colleges/institute/NGO/bilateral organization/INGO etc. But people only get entrance through the gate of public services commission system. But in all other organizations have their own rules and regulations than government.

Sources	Recruitment methods
Internal (Within the organization)	• Job posting • Employee referrals • Human resource inventory search • Promotion
External (Outside the organization)	• Advertising • Employment exchange • Educational institution placement • Emplores referrals • Political recruit and appointment • Trade unions • Labour contractors • Walk-ins/Write-ins/ Electronic search

For newly established institution: *after* getting approval of organization from cabinet, ministry of health and population studies the management and organization (M&O) of the institute and prepare the organizational structure for approval from MOH&P with justification. MOH& P sends the M&O with justification to National Planning Commission for comments. After getting recommendation made from NPC, Ministry of General Administration sends to Ministry of Finance for approval of sanction of the post, after approval of it. MoF gives the approval letter to MOH & P for the sanction of the post. Getting the letter of approval and sanctioned post letter from MoF. MOH&P send the copy with demand letter to PSC for the staffs of that facility.

For previously established organization but vacant post: If officer's position get vacant by any reason at district level, district level office should sent the written information to MOH&P within seven days with CC to ministry of general administration. Similarly Vacant post information from department and ministry level also should send within seven days of the vacant to public services commission (Source: Health regulation 2055B.S.) Similarly district in-charge and department director also should send vacant post notice to Public Service Commission with in 7 days of vacant post for fulfillment of the post. All the Examination system is as per PSC regulation written and oral.

Employment satisfaction:

Employ satisfaction play vital role to meet the organization and government goal and objective. Satisfactions of HR help to control over excessive employee turnover. Long-term settlement of human resource reflects the organization success and able to achieve the target set by the authorities. Satisfactions drive the organization effectively and efficiently to improve quality of work.

For the achievement of the organizational and achievement of target, retention of employee is crucial and which is affected grossly by the employee satisfaction. Broadly it

includes the affecting factors such as salary, organizational culture, training, career paths and recruitment techniques.

Apart from these factors there are many factors for employee satisfaction which can be syudied under the following headings.

- Education and training

Proposed specific action include: ensuring a mandatory service period in national health service as an obligatory condition for scholarship, effective and enforceable bonding means and improve local and in country training and continuing education, this may include intermittent, continuous of distant learning The training and education which the employee has be matched with job condition.

- Individual and Social factors

The aspiration of skilled health personnel for better living conditions and opportunities for self and families should be recognize and taken into account, including supportive working environment. Personal development plans for the employee should be included with in the organizational policy. Governments can work together with professional association and unions to improve working conditions for the workers and their families.

- Organizational and structural context
  - Adequate pay
  - Efficient administration
  - Competent supervisor
  - Good interpersonal relationship in organization
  - Good leader/manager
  - Friendly working environment:
  - Achievement and promotion
  - Job simplification, job rotation, job enlargement and job enrichment
  - Recognition
  - Work itself
  - Responsibility
  - Advancement
  - Self improvement
  - Reward system, appropriate bonus and incentives
  - Reliable workforce
  - Life security

- Financial aspects
  Compensation and benefits bonus should be fair and reliable. Salaries meet the expenses if the minimal standard of life
- Political
  Political leadership should be able to assess future threats and oppurtunities. React to change in regulations laws, policies and partnership.

Job description:

- Job description describes Jobs not Job holders. It is concerned with the job itself and not with the work. It tell us what is to be done, How it is to be done and why it is standard of a function in that it defines the appropriate and authorized contents of the job.
- Job description is the first and immediate product of job analysis process is the job description. As its title indicates this document is basically descriptive in nature and constitute a record and existing and pertinent job facts.
- Job description has two kinds of information organizational information and functional information.
- This is a written statement that states the tasks, duties, responsibilities, working conditions, machines, and equipment and details of physical environment of the job.
- A definition of the organization expectation of the job holders.

Job description form and its components

Comprehensive and performance focused job description and specification statement contains several components. Job description provide the clear picture and nature of post or job that help candidate to select the job title according to own performance and eligibility.

A) Job identification:-

This section identifies the job in the organizational context and includes such information as:-

1. Job title: - The name of the job as officially approved or recognized.
2. Level or class: - The seniority level in the positional hierarchical.
3. Service category: - Specialization group or class the job belongs to.
4. Job location: - Unit or section where the job is place in the organization.
5. Relationships: - with the other job in the organization such as who the job holder reports to who supervisor and who has to coordinate with in carrying out the work activities.
6. Job purpose or summary: - What is the basic reason for the existence of the job or what is the general nature of the job in terms of broad responsibilities.

B. Job contents:-

This section lists down the main internal elements of the job and includes such information as:-

7. Work activities: - The main responsibility/result and specific duties to be carried out under each them.
8. Performance standards: - The level of performance job holder is expected to meet while performing works activities.
9. Performance indicators: - The criteria the supervisor will use to measure the level of performance of the job holder.
10. Time requirement: - The job holder is expected to spend in each responsibility area.
11. Authority: - The extend of discretion or decision limit of the job holder in utilizing resources including staff money, information or things.

Job description of a Public health officer:

District Public health is responsible to perform or support to perform for planning, implementation, supervision, monitoring, co-ordination and evaluation of all promotive, preventive and curative health programmes of the district. It includes the following:

A.1. Planning of all Public health programmes as per provided guidance and budget selling received from Planning commission /MoH.
A.2. To play a key focal point role in approval of programme from DDC council and sent the approved program timely to RD and DoHs
A.3. Support in Ilaka level planning and implementation.
B. Allocation of target to all Health Facilities as per population and geographical situation of the area.
C. 1. Basic information collection from all Health Facilities and rerecording and reporting to concerned authority. Prepare and maintain district health profile
D. 1. To implement Family Planning programme all over the district through all Health Posts.
D.2. To provide permanent FP services through mobile campaigns
E. To provide Immunization services to all target children and pregnant women by Village health workers
F. Regularly growth monitoring of the under five years children and nutrition education through MCH clinic
G. To implement diarrhoeal disease control programme through HP, School teacher and FCHV
H. Control of ARI diseases from HP and provide treatment of Pneumonia.
I. Control and prevention of malaria/ Kala Azar/ JE. Timely slide collection, examination and full course treatment of all positive cases.
J. Control of tuberculosis, leprosy like public health diseases
K. prevention and control of epidemic
L. Health education and information for awareness rising.
M. School health programme as change agent preparation and production of health citizen
N. Encouragement and utilization of FCHVS in promotive, preventive and treatment of minor aliments.
O. Recording reporting as per HMIS system
P. Minor treatment services
Q. Community Drug Programme(CDP)

Participatory organizational development:

Employee involvement, workplace democracy, empowerment, employee ownership to manage planned changed for improving organizational effectiveness through behavioral improvement is called participatory organizational development

Characteristics of Participatory organizational development:

- Commitment to employee participation at all level
- High standards
- Open communication
- Trust between managers and employees respect for one another knowledge
- Group problem solving
- Work autonomy

Participatory organizational development focus on behavioral interventions:

- Change in pattern of behaviors of employees
- Co –ordination and integration in a systems perspective
- Team buildings to foster team spirit cooperation and commitment
- Training and development
- Programmes to improvement knowledge, attitudes and skills
- Managing planned change
- Managing conflict
- Quality of work life
- Collaborative management

Promotion and Job security:

It is the important component of human resources motivation and retention of human resource in the organization. Both of them encourage the employee to perform the assigned responsibility. Promotion should be done on the basis of time period and academic qualification. Certain standard/ rules and regulation should be prescribed in each organization for it. In Nepal promotion system for Public health officers is as given below:

level	Open competition	Performane appraisal	Internal competition
7th	100%	-	-
8th	100%	*	*
9th	10%	60%	30%
10th		100%	
11th	10%	60%	30%

All the promotion comes through Public Services Commission examination system. Time bond, training for at least one month are the prerequisites for promotion.

Percent allocated marks for promotion is as given below; Performance appraisal-40%, Seniority-20%, Working at remote geographical areas 255and academic qualification and training -15%. Altogether r 100 marks.

Job security of the health professional remains unless and until following mistakes are done by health professional as per health regulation 2056 Nepal:

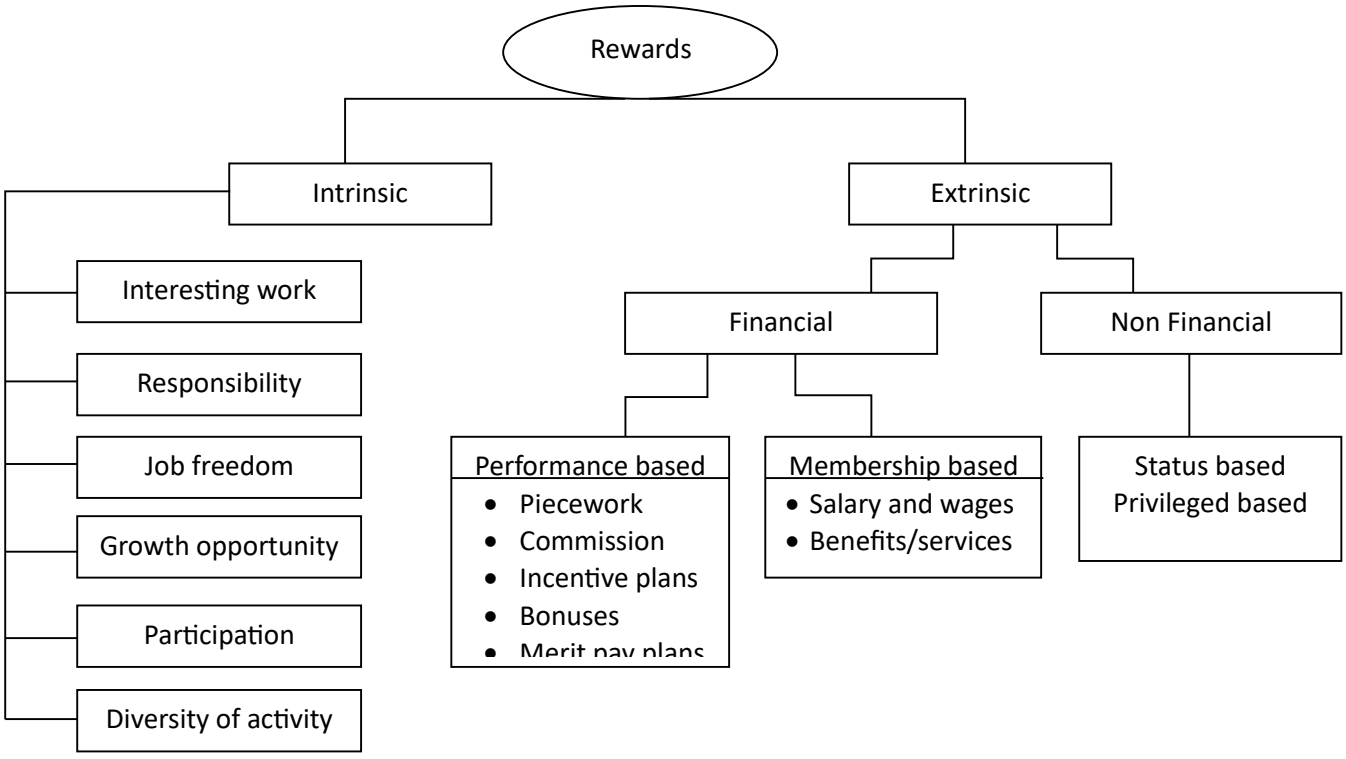
1. working with gross misconduct with intension
2. Not working as per designation right, responsibility,
3. Not following the prescribed characteristics
4. Coming frequently to office drinking alcohol
5 Frequently misconduct of characteristics
6 To be participated in politics.

Reward: Reward is a kind of basic motivational factor of employee for better performance. reward is a material and psychological payoffs for performing tasks in the workplace It is a kind do compensation, benefits, incentives, recognition status, prestige, . It is divided into two categories:

***Extrinsic Rewards*:** Rewards or payoffs granted to the individuals by their organization for example money, fringe benefit, promotion, recognition, status, praise etc.

***Intrinsic Rewards*:** These are the rewards which are self generated by the individuals such experienced or felt by the employees e.g.; sense of accomplishment, self-esteem, and self actualization.
Effective motivational tool the reward system should satisfied the following conditions:

1. Rewards should be satisfied the needs
2. One must believe that efforts will lead o reward
3. reward must be equitable
4. reward should be linked with performance.



Staffs development:

- Higher education,
- promotion,
- training,
- performance improvement,
- Job enrichment
- job advancement,
- exposure visits
- coaching, changing the job periodically
- exposure to workshop etc

Role of Health Care Service System in HRH Utilization

1. ***Infrastructure and capacity of national health services system – primary, secondary and tertiary levels:***

Generally land is provided by Government of Nepal for central, zonal and district level hospitals and offices. Construction of the infrastructure is planned and implemented by MOH & P as per planning process and available budget. Similarly central level department and division are constructed by the Government as well as supported from donor organizations. Many types of equipments for all level health facilities are also supported by donor partners.

Construction and purchasing of equipments depends on priority of the programme and demand from the district and hospital development board.
Regarding the Sub health post is supposed to provide building as well as construction by Local government i.e. DDC and VDC

Tertiary level:

- BEmOC and CEmOC building construction
- CAC building construction
- Renovation and construction
- Quarter construction
- Post mortem house construction
- Retaining and compound wall construction
- Placenta pit construction and Furniture purchasing
- Health facility induced waste management construction
- Telephone / electrification water supply etc construction

Secondary level:

- BEmOC and CEmOC building construction
- CAC building construction
- Renovation and construction
- Quarter construction
- Post mortem house construction
- Retaining and compound wall construction
- Placenta pit construction
- Furniture purchasing
- Health facility induced waste management construction

- Telephone / electrification water supply etc construction

Primary level:

- Birthing center construction for HP
- PHCC& HP building construction
- DHO/PHO building construction
- Land purchasing for PHO and Hospital building construction
- Doctor/ Nursing quarter construction
- Hospital/ PHCC/HP/SHP equipment purchasing
- email inter net connection for district
- Furniture Hospital/PHCC/HP/SHP purchasing
- Telephone, electrification water supply etc construction
- computer/ photocopy machine purchasing and supply

2. Role of Private sector:

Private sector is not responsible to support to Government in terms of infrastructure development, but they expect ambitious support from government side in different infrastructure aspects. Till the date they are providing the curative health services only for the sake of money, if they provide public health services like vaccination as a means of attracting people and advertising the institute. In addition to that they take money indirectly from people in different names like registration/ cards charge etc for the free items provided by government. They expect equipments and vehicle support from government. Unfortunately they are running high cost service in very much congested area and in unaccepted standards building. Government has developed the standards but they do not implement accordingly. Some clinical laboratories are advertising services by computer and sophisticated technology but they do not have even a simple microscope. Government is in silent and quite sleeping stage. Majority of private sectors are running bye auctioned equipment from some where else.

Role of professional bodies and councils in the quality assurance in health and practice:

Quality of Health Care:

The quality of health care is defined as *"Health care services that produce desired health outcomes and fulfill consumer's needs, with optimum use of available resources, provided by trained and competent providers as per the national norms and standards with minimizing risk for service providers as well as consumers."*

Quality Assurance:

"Quality Assurance is a continuous process which includes series of activities for improving and maintaining optimum level of quality of health care services that includes mainly; setting standards and protocols, communicating standards, developing indicators, monitoring compliance with standard and solving problems by team approach."

Perspectives in the meaning of quality

There are different perspectives to quality in health care. People understand quality from their own perspectives, from the health provider's perspectives quality means providing the best possible care available to the consumer. Consumers perceive quality as getting

prompt care as and when they need. For the administrator, on the other hand, quality means to provide health care in a cost effective manner with minimum resources.

Meaning of Quality Assurance

Clients, health care providers and administrators (managers) try to define the quality from their own perspectives. Public often focus on effectiveness, accessibility, interpersonal relation, efficiency, continuity and amenities as the most important dimensions of quality, whereas health service providers focus on technical competence, effectiveness and safety dimensions. Administrators or managers hold the views that access; effectiveness, technical competence and efficiency are the most important dimensions of quality. Health should be considered as a service rather than a production line as it has to deal with human beings

The quality of health care services is becoming a required attribute to providing health services in all parts of world. Almost all countries are sharing a common concern to ensure that the health care services meet the requirement of their population .Several countries are developing and implementing quality assurance mechanism to ensure the quality of health care services delivered by them. The important role of any health care system is to ensure the quality of its services and to improve efficiency as well as effectiveness of the health services delivery at all level.

Education, training and professional regulation:

Government of Nepal, Ministry of Health and population has established different autonomous councils by act to carry out QA activities related to education, training and professional regulation. The following councils carry out the QA activities for different category of health workers:

S No	Name of Council	Responsibility Area	QA Activities
1.	Nepal Medical Council (1964)	Physicians, Dentists	• Accreditation • Licensing exam
2.	Nepal Ayurvedic Council (1988)	Ayurvedic Physicians	• Accreditation • Certification
3.	Nepal Nursing Council (1995)	Nurse	• Accreditation • Certification
4.	Nepal Health Professional Council (1996)	Allied Health Professional & Health Workers	• Accreditation • Certification
5.	Nepal Pharmacy Council (2001)	Pharmacists	• Accreditation • Certification

A separate unit under the Department of Health Services has also been established for monitoring and coordinating quality of care activities carried out by different health programmes and health institutions of both public and private sector. Ministry of Health and population has recently adopted an explicit national policy and strategy to regulate and provide guidelines for designing appropriate quality assurance systems and implementing it in an effective and efficient manner.

Role and functions of QA Section of management division:

Quality Assurance Section is the central level focal unit of QA programme/activities and will perform the following role and functions:

- Develop/design national QA system both for public and private sectors health programmes and institutions;
- Draft necessary regulatory framework and get it promulgated and develop related rules for its implementation;
- Monitor /supervise the quality of health care services provided by both public and private sectors and provide feedback accordingly;
- Facilitate programme divisions and health institutions in developing standards, guidelines and service protocols for specific health service including social inclusion and health care waste management;
- Coordinate with NHTC and other concerned agencies for conducting orientation / training on QA;
- Coordinate with NHEICC and other concerned agencies for conducting awareness programme on consumer's right and responsibilities to quality health services;
- Conduct / support studies and research activities to improve quality of health care;
- Coordinate and liaise with private sector health service and health human resources training institutions;
- Monitor quality of care and human resources of both public and private sector institutions;
- Liaise with QA Steering Committee at Ministry of Health and Population and QA Working Committee at district level;
- Collect QA activity reports conducted by programme divisions, health institutions and other agencies, review and analyze QA reports and provide feedback to concerned agencies;

Gaining clients' satisfaction by optimizing the use of limited resources is the quality of service. Quality must attract consumers or clients. They must be satisfied with services provided by the health facilities.
Quality is the totality of the features and characteristics of a product or service that bears on its ability to satisfy given needs.

Why Quality Assurance in Health Care?
Quality in health care is essential to;

- Improve the health status of the population
- Ensure the right of the people to access quality health services
- Meet consumer's need and expectations
- Maximize utilization of resources and reduce cost
- Ensure effective and efficient utilization of limited resources
- Standardize health care services and reduce variation
- Ensure safety and minimize risk and
- Fulfill the ethical and professional duty of health professional

Dimensions (components) of quality

1. Effectiveness and efficiency:

Effectiveness refers to the amount of outputs that are expected from the health care services, "Doing right things in right way". Efficiency refers to producing optimum health output from health services delivered.

2. Technical competency:
Technical competence refers to the skills, capability and actual performance of health providers, managers and support staff.

3 Safety:
Safety refers to minimizing the risks of injury, infection, harmful side effects or other dangers related to service delivery both for providers and service users.

4. Accessibility:
Access means health care services are available in terms of geographic access, affordability, socio-cultural acceptability, and free of organizational and language constraints.

5. Interpersonal Relation:
Interpersonal relations refer to the interaction between health care providers and health service consumers, managers and health care providers, and the health team and the community.

6. Continuity and comprehensiveness:
Continuity and comprehensiveness of services means health service users receive the complete range of health services that they need, without interruption

7. Amenities / Facilities:
Amenities mean availability of all essential facilities at service site for providing quality health services as well as comfortably of providers and users.

Other dimensions of quality may be, reliability (performing the services at the designated time), courtesy (politeness, respect and friendliness), credibility (belief that health professionals have the consumer's best interests at heart), understanding or knowing the consumer (making the effort to understand the consumer's needs by providing individualized attention) and responsiveness of health workers (willingness to provide the services).

Policy:

1. Quality assurance will be developed as an integral part of the essential health care services delivery system.
2. Partnership will be developed with non-government sector, private sector and community to ensure quality health services.
3. Standards will be developed to ensure quality services. Monitoring and evaluation system from centre to district level will be made community oriented for its sustainability.

Scope of Work

The QA Steering Committee at the Ministry of Health and Population is the apex body. It will:

- regulate overall QA activities carried out by government, non government and private sectors;
- provide necessary directives/guidelines to QA section under Management Division, Department of Health Services for effective implementation of quality health programmes and activities;
- formulate and / or update QA Policy and Strategy for quality improvement of health services;
- endorse research activities for the improvement of health services;

The QA Steering Committee's meeting will be held at least once in a year. Other relevant organizations/institutions/individuals may be invited in the meeting as and when necessary.

Scope of Work:

- Carry out QA activities as per instructions and guidelines provided by QA Section under Management Division, Department of Health Services.
- Ensure that the delivery of health services by government, non government and private health facilities at district level is as per the set standards and protocols.
- Monitor and evaluate the health facilities at district level.
- Conduct medical audit at health facilities within the district and provide feedback for quality improvement.
- Plan and implement QA activities for improving the quality of health services at district level.
- Co-ordinate with government, non government and private health facilities for implementation of QA activities at district level.
- Report with necessary suggestions and recommendations to QA Section under Management Division, Department of Health Services.
- Recommend to concerning authority for establishment, operation and renewal of private and non government health facilities.

The QA Working Committee's meeting will be held at least three times in a year and more frequently if needed. Other relevant organizations, institutions and individuals may be invited as and when necessary.

Three Essential elements of quality care

1. **Structure/ Input**: The quality of health care is assessed through a study of the settings in which the care takes place. This includes adequacy of facilities and equipment, administrative processes, organization, qualifications and skills of the medical and nursing staff. The assumption is that good medical care is only possible if appropriate inputs are adequately available.
2. **Process**: This considers the standard of care- clinical history, physical examination, diagnostic tests, scientific basis for diagnosis and therapy, co-ordination and continuity of care, patient and provider compliance. The assumption is that given the proper procedures, good health outcome will result.
3. **Output / Outcome**: Outcome considers whether a change in a person's health status is attributable to health care received by him/her. It examines recovery, restoration of function and survival. Often there are multiple factors, which affect health output besides the treatment received.

Following matrix exhibits some of the key points related to structure, process and output / outcome that should be looked in to while assessing these three elements of quality of care.

Critical analysis of the regional Mal/Mis distribution of HRH in context of Nepal:

There are about 30,000 human resources in the country among them about one third are female health workers. In Nepal about 80 % people live in rural areas but 80% specialized professional are at urban areas.

There are five central level sophisticated hospitals at Kathmandu. Bir Hospital (NAMS), Kanti Children Hospital, and Maternity Hospital, Mental Hospital, Sukra Raj Tropical disease and infectious disease hospital. Sahid Ganga Lal Heart Foundation, TUTH, Patan Hospital, Two private Medical college are also at Kathmandu.Thus 90% medical specialists are working in the above institute are also centralized at Kathmandu.

Regional hospitals are situated at developmental regional center i.e. mostly at urban areas. Only single western regional hospital is at pokhara as functional stage. Mid western regional hospital surkhet is manned by only medical graduate 3 or 4 doctors hardly one or two specialist. Eleven Zonal level hospitals are functional in the country. But specialists deployed for services are only at Koshi, Narayani, Bheri and Lumbini Hospita; till the date Karnali. Rapti and Dhaulagiri Zones are deprived to see the specialist face at the working areas.

Most of the district hospitals are manned by one DHO as well as doctor. He also is responsible for promotive and preventive services. Similarly other categories of curative services based human resources are also centralized in the same way in urban areas.

These days medical officers are working at PHCC. Majority of PHCC's SN posts are vacant. Even some filled people are also deputized at district head quarter.

Similarly ANM's positions are pitiable situation at Health Post i.e. majority of the post are fulfilled but no body are working at the post. Regarding the public health sector, specialized sector divisions under department and centers like National Tuberculosis Center and AIDS/STDs control centers are similarly centralized at capital city Kathmandu. Regional directorate are also at regional center Thus Public health expert are also, centralized at urban areas as curative sector.

HRH Utilization

Under government system, there are

Summary

Types of Institution	Total
Sub-Health Post	3,129
Health Post	701
PHCC/Health Centre	193
District Health Office (D/PHO)	75
District Hospital	62
Zonal Hospital	11
Sub-Regional Hospital	1
Regional Hospital	2
Regional Health Training Centre	5
Regional TB Centre	1
Central Hospital	5
Regional Medical Store	5
Regional Laboratory	1
Divisions	6
Centres	5

Source: HMIS & Personnel Section, DoHS

There are about 2500 technical and 5000 administrative staffs under MOH&P. About 2-3 medical doctors are utilized at each district studied from scholarship system of government. Most of the PHCC/HC are fulfilled by the same medical graduate in all district.

Table 6f.2 Type of Workforce Distributions at Regional Health Directorates (RHDs), FY 2063/64 (2006/07)

Region	Eastern			Central			Western			Mid Western			Far Western		
	Sanctioned	Fulfilled	Vacant	Sanctioned	Fulfilled	Vacant	Sanctioned	Fulfilled	Vacant	Sanctioned	Fulfilled	Vacant	Sanctioned	Fulfilled	Vacant
Doctor (including MS)	100	44	56	212	104	108	173	129	44	66	24	42	73	28	45
Staff Nurse	109	78	31	213	159	54	197	173	24	84	57	27	40	36	4
Nursing	-	-	-	-	-	-	-	-	-	-	-	-	54	48	6
Paramedics	-	-	-	59	58	1	-	-	-	-	-	-	-	-	-
HP In-charge	-	-	-	178	157	21	-	-	-	-	-	-	-	-	-
HA/SAHW	244	215	29				238	195	43	200	119	81	148	78	70
AHW	1047	1005	42	1330	1258	72	1000	959	41	678	648	30	446	399	47
ANM	335	311	24	378	339	39	309	299	10	197	190	7	163	145	18
Others	2445	2248	197	2644	2436	208	2703	2599	104	2244	2122	122	1190	1598	-408
Total	4280	3901	379	5014	4511	*503*	4620	4354	*266*	3469	*3160*	309	2114	*2332*	-218

Source: Personnel Section, DoHs

Type of workforce Distributions at Department of Health Services

SN	Post	Grade/Level	Sanctioned Post
1	Director General	12th	1
2	Director	11th	5
3	Sr./Health Administrator	9/10th	5
4	Sr./Community Nursing Administrator/	9/10th	2
5	Sr./Public Health Administrator	9/10th	8
6	Deputy/Chief Medical Officer	9/10th	1
7	Sr. Computer Officer	Gazetted II	1
8	Malariologist/Sr. Health Administrator	9/10th	1
9	Sr. Demographer	Gazetted II	1
10	Sr./Consultant Dermatologist	9/10th	1
11	Sr./Consultant Gayne Obst.	9/10th	1
12	Deputy Director	Gazetted II	1
13	Under Secretary	Gazetted II	2
14	Under Secretary (Finance)	Gazetted II	1
15	Sr. Pharmasist	7/8th	1
16	Sr. Public Heallth Officer	7/8th	8
17	Sr./Medical Officer	7/8th	3
18	Electrical Engineer	Gazetted II	1
19	Sr./Sister	7/8th	1
20	Computer Programmer	Gazetted III	1
21	Demographer	Gazetted III	1
22	Stat. Officer/Demographer	Gazetted III	1
23	Veterinary Doctor	Gazetted III	1

24	Section Officer	Gazetted III	4
25	Account Officer	Gazetted III	4
26	Legal Officer	Gazetted III	1
27	Nayab Subba	Non Gazetted I	18
28	Accountant	Non Gazetted I	4
29	Computer Operator	Non Gazetted I	10
30	Health Asst./PHI	5/6th	18
31	Vector Borne Disease Control Supervisor	5/6th	2
32	Immunization Supervisor/EPI Officer	5/6th	2
33	Electric Overseer	Non Gazetted I	1
34	Medical Record Supervisor	5/6th	1
35	TB/Leprosy Supervisor	5/6th	1
36	Stat Asst.	Non Gazetted I	2
37	Electrician	Non Gazetted I	1
38	Refrigerator Technician	Non Gazetted I	1
39	Public Health Nurse/Community Nursing Inspector	5/6th	1
40	Kharidar	Non Gazetted II	4
41	Asst. Accountant	Non Gazetted II	4
42	Computer Asst. Operator	Non Gazetted II	1
43	Cold Chain Assistant/Cold Chain Supervisor	4/5th	4
44	Typist	NG I/II/III	4
45	Office Assistant (Peon)	Not Classified	28
46	Light Vehicle Driver	Not Classified	6
47	Heavy Vehicle Driver	Not Classified	2
48	Sweeper	Not Classified	2
Total			175

Source: Personnel Section, DoHS

Problems/Constraints and Actions to Be Taken

The role of administration is very important for the successful implementation of all health programmes. Administration must be oriented to personnel development on the one hand and be responsible for overall programmes development activities on the other. The Administrative Section has identified the following problems/constraints and actions to be taken.

S. No.	Problems/constraints	Action to be taken
3.1	Staff duties and authority unclear	The duties, responsibilities, and delegation of authority of employees should be defined clearly. There should be commitment and budget allocation for effective implementation of these activities.
3.2	Inadequate training of administrative staff	Develop and implement in-service training packages. Increase effectiveness and efficiency of administration unit. Evaluation of administrative employees/career development. Opportunities should be on the basis of performance in implementing the projects.

S. No.	Problems/constraints	Action to be taken
3.3	Need to update employee personnel records in DoHS and HuRIC unit	Each and every action should be systematic according to the rules and regulations. Any changes (e.g. transfer, training or promotion) should be communicated to the HuRIC Unit for updating. Staffs transfer should be arranged systematically according to the rules and regulations. Implement E- HURDIS plan. Record system should be improved systematically.
3.4	Registration of health institutions and created posts	Registration of health institutions and created posts in Civil Service Registration Department, Ministry of General Administration
3.5	No HuRIC unit connection at regional health directorate	Develop HuRIC unit at RHDs and establish networking between RHD and central health resource information system
3.6	Fulfilment of vacant posts and deputation	• Strictly follow Civil Service and Health Service Act and Regulation • Create reserve pool for posts • Provide special incentives to the personnel's working at remote areas
3.7	Performance appraisal system was not functioning properly	• Performance appraisal should be based on job descriptions, • Tie up reward and punishment with performance
3.8	Frequent transfer and no transfer	Strictly follow the Civil Service Act and Health act and regulations

HuRDIS {Human Resources Development Information System

Introduction:

Enhanced Human Resource Development Information System is a computer-based information system of health service workforce (HSWF) envisaged be developing and implementing within the Ministry of Health and Population and its constituent organizations at the central, regional, and district level. HuRDIS is, in essence and extended version of existing Human resource Development Information System (HuRDIS) currently in operation at Health Sector Human Resource Information Centre (HuRIC), Ministry of Health and Population (MoHP).

Originally, HuRDIS was developed and implemented at the Department of Health Services some 10 years back. The system is in operation since then and has been moved to the Ministry since 2004 under the ownership of Human Resource Information Center (HuRIC) unit. This system handles and maintains personnel record of all HSWF deployed within the MoHP and its constituent organizations.

HuRDIS was developed relatively in a "low-key" technical platform – MS Access, and was implemented in windows-based Local Area Network (LAN) environment.

Right from the inception, HuRDIS has been widely accepted by the users. The system has been a part of the mainstream function of personnel management within the ministry and its constituent organizations. All appointments, transfers and promotions are officiated only after the records have been posted in HuRDIS.

Despite the successful implementation and operation of HuRDIS for more than ten years, it has now been felt to enhance the system to cater to the new demands and requirements towards better service delivery. It has been felt necessary to include not only government sector health service workforce record but also all health service workforces deployed in private and non-government sector. Such an enhancement is sought to support and facilitate country's health service workforce management for ensuring and/or contributing towards effective better service delivery and quality of service. HuRDIS from being a merely system recording personnel administration related data of MoHP to a ***national level health sector human resource management information system***.

The envisaged human resource management information system monitors, controls and supports the complete cycle of human resource management encompassing ***production, deployment, and further development (training and further education) of HSWF*** of the country.

To allow an improved efficiency in the personnel administration function of the MoHP, MoHP has also envisioned the philosophy of ***Regionalization***, whereby the regional level and district level offices of the MoHP shall be strengthened to handle all personnel administration related matter at the local level. This further requires the E-HuRDIS to establish a data and information network with the regional level offices as well. With this respect all Regional Health Directorates are considered to play the role of regional hubs to maintain and update personnel record of all personnel events occurring within the respective regions.

Similarly, Regional Health Training Centers (RHTC) are responsible for maintaining and updating human resource development information (training record) of their respective regions.
MoHP thus initiated the task of system study to asses the current status and design

SN	HuRDIS	E-HuRDIS
1.	**Data Coverage**	
	Personnel Record of Health Service Workforce deployed in the Government Sector	Personnel Record and Human Resource Management Information of all Health Service Workforce in Private, Non-Government, as well as Government sector.
2.	**Database Platform**	
	MS Access RDBMS	Server Level RDBMS such as Oracle, SQL.
3.	**Implementation**	

SN	HuRDIS	E-HuRDIS
	Implemented at the MoHP	To be implemented at the MoHP and its constituent organizations at central, regional and district level (Regionalization)
4.	**Communication Network**	
	Local Area Network within the HuRIC unit	Data and Information Network between MoHP, its constituent organizations including regional offices, Health Councils, and Private and Non-Government Hospitals.
5.	**Information Access**	
	HuRDIS is solely operated by the HuRIC staff including information retrieval and query.	Allow Web-enabled information access to the stakeholders and general populace of the globe.

E-HuRDIS System Architecture

Within the identified user and system requirements, envisaged E-HuRDIS has been designed to cater the immediate needs as well as to allow accommodating possible future demands flexibly. E-HuRDIS is a web-enabled information system with an extensive data and information network between MoHP, its constituent organizations at the central as well as regional level, and such stakeholders as Health Councils and Hospitals. This entails a strong communication and network system implemented on today's advanced technology base which are at the same time sustainable and right-fit to the current MoHP requirements and resources (including human resource base).

Information and Communication Network

E-HuRDIS is envisaged to be developed and implemented in a networked environment which brings together all stakeholders into a single stream of Health Sector Human Resources Information Network. The E-HuRDIS Information Network links Ministry of Health and Population with Health Councils, Health Service Providing Institutions, *Nijamati Kitabkhana*, and Technical Health Service Workforce. The system further links all central, regional and district level offices of the Ministry to central E-HuRDIS to establish an information network of personnel administration and human resource development and management of HSWF of the government and decentralization of the same.

Under the proposed E-HuRDIS system architecture, a national level central E-HuRDIS database shall be implemented at MoHP with the replicated versions at regional level offices, such as Regional Health Directorates. At all regional offices personnel record belonging to the respective region shall be replicated and data synchronization shall be carried out through available and appropriate dialup connections. It has been proposed to provide VPN connectivity to the regional and district. Health Councils are the primary source of THSWF License record and hence appropriate connectivity is required with them to allow maintenance and update (synchronization) of license record at the central E-HuRDIS DB.

In view of the geographic and primarily the functional proximity a direct Radio Link has been proposed with central level departments, such as the Department of Health Services,

Department of Ayurveda, and Department of Drug Administration. This allows an on-line connectivity and instant data updates and information sharing with Central E-HuRDIS which is very much needed for agencies heavily involved in managerial and implementation level. And, between different divisions and sections – among the key users - within the MoHP, an Intranet network system is proposed to have round the clock on-line connection with the E-HuRDIS database implemented at HuRIC in LAN environment. Other users can anytime access E-HuRDIS database through the Internet using the web-portal.

A Web-portal shall be developed and implemented which allows not only E-HuRDIS information access by general populace but also provides links to individual websites and portals of private and non-government HSPIs.

HuRDIS and other MIS

Other functional MIS of the Ministry includes Health Management Information System developed and implemented at the Department of Health Services and Logistic Management Information system developed and implemented at the Logistic Management Division of the Department of Health Services.

Logistic Management Information System deals with medicines distribution and inventory at different health service institutions at central, regional and district level. And Health Management Information System provides and maintains information primarily on health demography. Both of these information systems do not have a direct link with the envisaged HuRDIS. However, at the top level of the MoHP management, information from all these systems needs to be integrated to provide strategic management information for policy and strategic level decisions. And this indicates an integrated Health Sector Management Information System, which the ministry should pursue sometimes in the very near future.

HuRDIS and MoHP IT Infrastructure

To facilitate -HuRDIS, IT infrastructure of MoHP needs to be revamped. Upgrading MoHP IT infrastructure not only allows HuRDIS to function in its totality, but will also be capable enough to host other information systems for MoHP in future. The IT infrastructure will be scalable which means it will grow in accordance with the information system needs of the ministry in future.

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